

03/14/2005 10807710.trn

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PASSWORD:

TERMINAL (ENTER 1, 2, 3, OR ?):2

\* \* \* \* \* \* \* \* \* \* \* \* \* \* \* \* Welcome to STN International \* \* \* \* \* \* \* \* \* \* \* \* \* \* \*

NEWS 1 Web Page URLs for STN Seminar Schedule - N. America  
NEWS 2 "Ask CAS" for self-help around the clock  
NEWS 3 SEP 01 New pricing for the Save Answers for SciFinder Wizard within STN Express with Discover!  
NEWS 4 OCT 28 KOREAPAT now available on STN  
NEWS 5 NOV 30 PHAR reloaded with additional data  
NEWS 6 DEC 01 LISA now available on STN  
NEWS 7 DEC 09 12 databases to be removed from STN on December 31, 2004  
NEWS 8 DEC 15 MEDLINE update schedule for December 2004  
NEWS 9 DEC 17 ELCOM reloaded; updating to resume; current-awareness alerts (SDIs) affected  
NEWS 10 DEC 17 COMPUAB reloaded; updating to resume; current-awareness alerts (SDIs) affected  
NEWS 11 DEC 17 SOLIDSTATE reloaded; updating to resume; current-awareness alerts (SDIs) affected  
NEWS 12 DEC 17 CERAB reloaded; updating to resume; current-awareness alerts (SDIs) affected  
NEWS 13 DEC 17 THREE NEW FIELDS ADDED TO IFIPAT/IFIUDB/IFICDB  
NEWS 14 DEC 30 EPFULL: New patent full text database to be available on STN  
NEWS 15 DEC 30 CAPLUS - PATENT COVERAGE EXPANDED  
NEWS 16 JAN 03 No connect-hour charges in EPFULL during January and February 2005  
NEWS 17 FEB 25 CA/CAPLUS - Russian Agency for Patents and Trademarks (ROSPATENT) added to list of core patent offices covered  
NEWS 18 FEB 10 STN Patent Forums to be held in March 2005  
NEWS 19 FEB 16 STN User Update to be held in conjunction with the 229th ACS National Meeting on March 13, 2005  
NEWS 20 FEB 28 PATDPAFULL - New display fields provide for legal status data from INPADOC  
NEWS 21 FEB 28 BABS - Current-awareness alerts (SDIs) available  
NEWS 22 FEB 28 MEDLINE/LMEDLINE reloaded  
NEWS 23 MAR 02 GBFULL: New full-text patent database on STN  
NEWS 24 MAR 03 REGISTRY/ZREGISTRY - Sequence annotations enhanced  
NEWS 25 MAR 03 MEDLINE file segment of TOXCENTER reloaded  
  
NEWS EXPRESS JANUARY 10 CURRENT WINDOWS VERSION IS V7.01a, CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP), AND CURRENT DISCOVER FILE IS DATED 10 JANUARY 2005  
  
NEWS HOURS STN Operating Hours Plus Help Desk Availability  
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NEWS WWW            CAS World Wide Web Site (general information)

Enter NEWS followed by the item number or name to see news on that specific topic.

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FILE 'HOME' ENTERED AT 14:16:29 ON 14 MAR 2005

```
=>
Uploading
THIS COMMAND NOT AVAILABLE IN THE CURRENT FILE
Do you want to switch to the Registry File?
Choice (Y/n):
Switching to the Registry File...
Some commands only work in certain files. For
command can only be used to look at the index
index. Enter "HELP COMMANDS" at an arrow prompt
commands which can be used in this file.
```

## => FILE REGISTRY

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0 21	0 21

FILE 'REGISTRY' ENTERED AT 14:16:38 ON 14 MAR 2005  
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STRUCTURE FILE UPDATES: 13 MAR 2005 HIGHEST RN 845467-46-1  
DICTIONARY FILE UPDATES: 13 MAR 2005 HIGHEST RN 845467-46-1

**TSCA INFORMATION NOW CURRENT THROUGH JANUARY 18, 2005**

Please note that search-term pricing does apply when

Crossover limits have been increased. See HELP CROSSOVER.

Experimental and calculated property data are now available. For more

Information check HELP PROF at an arrow prompt in the file or refer to the file summary sheet on the web at:  
<http://www.cas.org/ONLINE/DBSS/registryss.html>

Uploading C:\Program Files\Stnexp\Queries\10807710.str

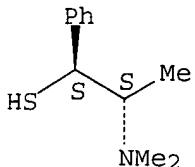
$\alpha$ -Toluenethiol,  $\alpha$ -[1-(dimethylamino)ethyl]-, hydrochloride,  
L(+)-threo-

(preparation of)

RN 942-48-3 CAPLUS

CN Benzenemethanethiol,  $\alpha$ -[1-(dimethylamino)ethyl]-, [S-(R\*,R\*)]- (9CI)  
(CA INDEX NAME)

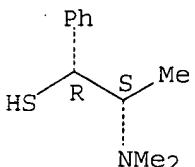
Absolute stereochemistry.



RN 942-49-4 CAPLUS

CN  $\alpha$ -Toluenethiol,  $\alpha$ -[1-(dimethylamino)ethyl]-, L-(-)-erythro-  
(8CI) (CA INDEX NAME)

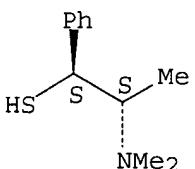
Absolute stereochemistry.



RN 942-50-7 CAPLUS

CN Benzenemethanethiol,  $\alpha$ -[1-(dimethylamino)ethyl]-, hydrochloride,  
[S-(R\*,R\*)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



● HCl

L13 ANSWER 17 OF 17 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1964:447807 CAPLUS

DOCUMENT NUMBER: 61:47807

ORIGINAL REFERENCE NO.: 61:8284a-b

TITLE: Preparation of quaternary ammonium betaine salts

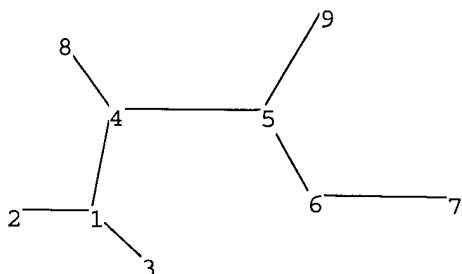
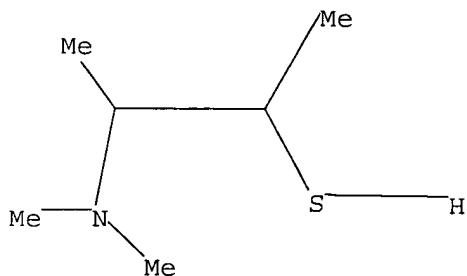
INVENTOR(S): Klass, Donald L.

PATENT ASSIGNEE(S): Pure Oil Co.

SOURCE: 4 pp.

DOCUMENT TYPE: Patent

03/14/2005 10807710.trn



chain nodes :

1 2 3 4 5 6 7 8 9

chain bonds :

1-2 1-3 1-4 4-5 4-8 5-6 5-9 6-7

exact/norm bonds :

1-4 5-6

exact bonds :

1-2 1-3 4-5 4-8 5-9 6-7

Match level :

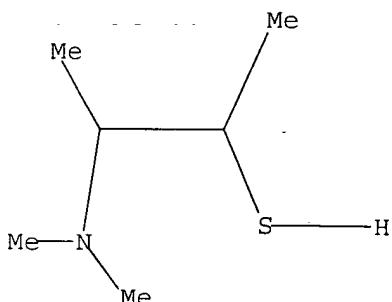
1:CLASS 2:CLASS 3:CLASS 4:CLASS 5:CLASS 6:CLASS 7:CLASS 8:CLASS 9:CLASS

L1 STRUCTURE UPLOADED

=> D L1

L1 HAS NO ANSWERS

L1 STR



Structure attributes must be viewed using STN Express query preparation.

=> S L1

SAMPLE SEARCH INITIATED 14:16:51 FILE 'REGISTRY'

SAMPLE SCREEN SEARCH COMPLETED - 1948 TO ITERATE

51.3% PROCESSED 1000 ITERATIONS

0 ANSWERS

INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*

03/14/2005 10807710.trn

BATCH \*\*COMPLETE\*\*  
PROJECTED ITERATIONS: 36313 TO 41607  
PROJECTED ANSWERS: 0 TO 0

L2 0 SEA SSS SAM L1

=> S L1 SSS FULL  
FULL SEARCH INITIATED 14:16:58 FILE 'REGISTRY'  
FULL SCREEN SEARCH COMPLETED - 37690 TO ITERATE

100.0% PROCESSED 37690 ITERATIONS  
SEARCH TIME: 00.00.01

4 ANSWERS

L3 4 SEA SSS FUL L1

=> FIL CAPLUS  
COST IN U.S. DOLLARS SINCE FILE TOTAL  
FULL ESTIMATED COST ENTRY SESSION  
161.33 161.54

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FILE COVERS 1907 - 14 Mar 2005 VOL 142 ISS 12  
FILE LAST UPDATED: 13 Mar 2005 (20050313/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> S L3  
L4 3 L3

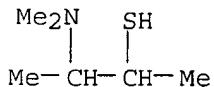
=> d 14 ibib abs hitstr tot

L4 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2005 ACS on STN  
ACCESSION NUMBER: 2005:141013 CAPLUS  
DOCUMENT NUMBER: 142:212335  
TITLE: Polyamine and aminothiol compounds and compositions for use in conjunction with cancer therapy  
INVENTOR(S): Fahl, William E.; Peebles, Daniel D.; Copp, Richard R.  
PATENT ASSIGNEE(S): Wisconsin Alumni Research Foundation, USA  
SOURCE: PCT Int. Appl., 142 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005014524	A2	20050217	WO 2004-US26535	20040809
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				

PRIORITY APPLN. INFO.: US 2003-493218P P 20030807  
 AB The invention provides polyamine and aminothiol compds. and pharmaceutical compns. for administration in conjunction with cancer chemotherapy or radiation therapy. The compds. are administered locally to provide protection against the adverse side-effects of chemotherapy or radiation therapy, such as alopecia, mucositis and dermatitis. Pharmaceutical preps. comprising one or more chemoprotective polyamines or aminothiols formulated for topical or local delivery to epithelial or mucosal cells are disclosed. Methods of administering the pharmaceutical preps. are also disclosed.  
 IT 844435-75-2  
 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (polyamine and aminothiol compds. and compns. for use in conjunction with cancer therapy)  
 RN 844435-75-2 CAPLUS  
 CN 2-Butanethiol, 3-(dimethylamino)- (9CI) (CA INDEX NAME)



L4 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 1984:562548 CAPLUS  
 DOCUMENT NUMBER: 101:162548  
 TITLE: Substituted cysteamine ligands and their complexes with molybdenum(VI)  
 AUTHOR(S): Corbin, James L.; Miller, Kenneth F.; Pariyadath, Narayananakutty; Heinecke, Jay; Bruce, Alice E.; Wherland, Scot; Stiefel, Edward I.  
 CORPORATE SOURCE: Charles F. Kettering Res. Lab., Yellow Springs, OH, 45387, USA  
 SOURCE: Inorganic Chemistry (1984), 23(21), 3404-12  
 CODEN: INOCAJ; ISSN: 0020-1669  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 AB New bidentate cysteamine-based ligands containing Me-substituted C and N atoms were prepared. Together with known ligands the following complete set has now been prepared: NH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>SH, MeNHCH<sub>2</sub>CH<sub>2</sub>SH, Me<sub>2</sub>NCH<sub>2</sub>CH<sub>2</sub>SH, NH<sub>2</sub>C(CH<sub>3</sub>)<sub>2</sub>CH<sub>2</sub>SH,

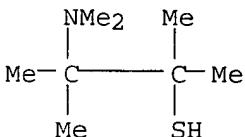
MeNHC(CH<sub>3</sub>)<sub>2</sub>CH<sub>2</sub>SH, Me<sub>2</sub>NC(CH<sub>3</sub>)<sub>2</sub>CH<sub>2</sub>SH, NH<sub>2</sub>CH<sub>2</sub>C(CH<sub>3</sub>)<sub>2</sub>SH, MeNHCH<sub>2</sub>C(CH<sub>3</sub>)<sub>2</sub>SH, Me<sub>2</sub>NCH<sub>2</sub>C(CH<sub>3</sub>)<sub>2</sub>SH, NH<sub>2</sub>C(CH<sub>3</sub>)<sub>2</sub>C(CH<sub>3</sub>)<sub>2</sub>SH, MeNHC(CH<sub>3</sub>)<sub>2</sub>C(CH<sub>3</sub>)<sub>2</sub>SH, and Me<sub>2</sub>NC(CH<sub>3</sub>)<sub>2</sub>C(CH<sub>3</sub>)<sub>2</sub>SH. Five of the ligands in this series are new, and their preparation is reported in detail. Also RNHCH<sub>2</sub>C(CH<sub>3</sub>)<sub>2</sub>SH ligands (R = iso-Pr and iso-Bu) are reported for the 1st time. These ligands, LH, were reacted in MeOH with MoO<sub>2</sub>(acac)<sub>2</sub> (Hacac = acetylacetone). In most cases MoO<sub>2</sub>L<sub>2</sub> resulted. However, in some cases this complex appears to be unstable. The preps. and spectroscopic properties of the complexes are reported. The low values of  $\nu$ (Mo-O) for some of the complexes are correlated either with H bonding or with the presence of a skew-trapezoidal-bipyramidal structure. Likewise, electronic absorption spectra differ for complexes with octahedral as opposed to skew-trapezoidal-bipyramidal structures. For a given complex, <sup>1</sup>H and <sup>13</sup>NMR spectroscopies are consistent with adoption in solution of the same octahedral or skew-trapezoidal-bipyramidal structure that is found in the solid state. Further, the skew-trapezoidal-bipyramidal complexes display temperature-dependent NMR spectra that are interpreted in terms of configurational averaging probably caused by Mo-N bond cleavage.

IT 91229-44-6P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

RN 91229-44-6 CAPLUS

CN 2-Butanethiol, 3-(dimethylamino)-2,3-dimethyl-, hydrochloride (9CI) (CA INDEX NAME)



● HCl

L4 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1964:447807 CAPLUS

DOCUMENT NUMBER: 61:47807

ORIGINAL REFERENCE NO.: 61:8284a-b

TITLE: Preparation of quaternary ammonium betaine salts

INVENTOR(S): Klass, Donald L.

PATENT ASSIGNEE(S): Pure Oil Co.

SOURCE: 4 pp.

DOCUMENT TYPE: Patent

LANGUAGE: Unavailable

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3131189		19640428	US	19611016

GI For diagram(s), see printed CA Issue.

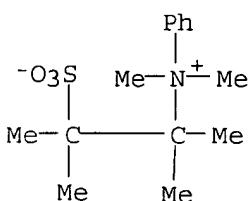
AB Carbyl sulfate (I), prepared by the reaction of 2 moles SO<sub>3</sub> and 1 mole ethylene, reacted with a tertiary amine to form betaines. Thus 1.5 g. pyridine (II) in 10 ml. ethylene dichloride was added to 3 g. I in 30 ml. ethylene dichloride (the reaction was exothermic), the liquid decanted from the precipitate, and the precipitate covered with petr. ether and cooled to give

IIa ( $R = R_1 = H$ ), m. 250-5° (HCONMe<sub>2</sub>). I was also treated with the following to form betaines: quinoline, acridine, trimethylamine, and dimethylaniline (III). Also reported without details were: IIa ( $R = Ph$ ,  $R_1 = H$ ); Et<sub>3</sub>NCHEtCH<sub>2</sub>SO<sub>3</sub>; IIa ( $R = R_1 = Me$ ); and PhNMe<sub>2</sub>CMe<sub>2</sub>CMe<sub>2</sub>SO<sub>3</sub>. These compds. are useful intermediates for the preparation of detergents. (Cf. U.S. 2,666,788, or Brit. 686,061.)

IT 97176-62-0, Ammonium, dimethylphenyl(1,1,2-trimethyl-2-sulfopropyl), hydroxide, inner salt  
(preparation of)

RN 97176-62-0 CAPLUS

CN Dimethylphenyl(1,1,2-trimethyl-2-sulfopropyl)ammonium hydroxide, inner salt (7CI) (CA INDEX NAME)



=> FIL REGISTRY

COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION

FULL ESTIMATED COST 18.42 179.96

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE	TOTAL
ENTRY	SESSION

CA SUBSCRIBER PRICE -2.19 -2.19

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STRUCTURE FILE UPDATES: 13 MAR 2005 HIGHEST RN 845467-46-1

DICTIONARY FILE UPDATES: 13 MAR 2005 HIGHEST RN 845467-46-1

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 18, 2005

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

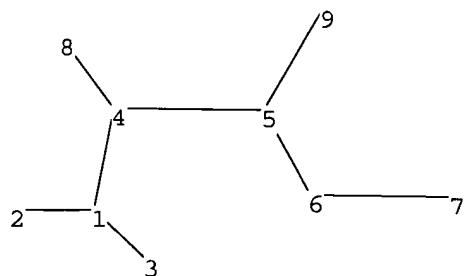
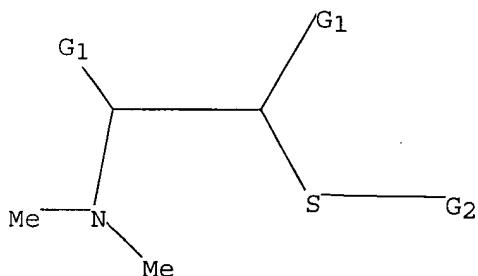
Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at:

<http://www.cas.org/ONLINE/DBSS/registryss.html>

=>

Uploading C:\Program Files\Stnexp\Queries\10807710a.str

03/14/2005 10807710.trn



chain nodes :  
1 2 3 4 5 6 7 8 9  
chain bonds :  
1-2 1-3 1-4 4-5 4-8 5-6 5-9 6-7  
exact/norm bonds :  
1-4 4-8 5-6 5-9 6-7  
exact bonds :  
1-2 1-3 4-5

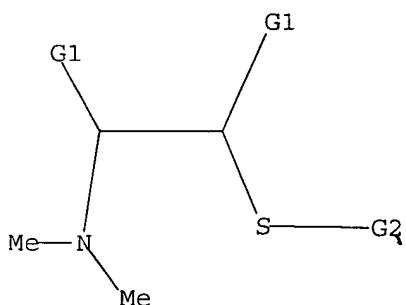
G1:Ak, Ph

G2:H, CH3

Match level :  
1:CLASS 2:CLASS 3:CLASS 4:CLASS 5:CLASS 6:CLASS 7:CLASS 8:CLASS 9:CLASS

L5 STRUCTURE UPLOADED

=> d 15  
L5 HAS NO ANSWERS  
L5 STR



G1 Ak, Ph

G2 H, Me

Structure attributes must be viewed using STN Express query preparation.

=> s 15  
SAMPLE SEARCH INITIATED 14:22:20 FILE 'REGISTRY'  
SAMPLE SCREEN SEARCH COMPLETED - 5592 TO ITERATE

03/14/2005 10807710.trn

17.9% PROCESSED 1000 ITERATIONS  
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)  
SEARCH TIME: 00.00.01

0 ANSWERS

FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*  
BATCH \*\*COMPLETE\*\*  
PROJECTED ITERATIONS: 107357 TO 116323  
PROJECTED ANSWERS: 0 TO 0

L6 0 SEA SSS SAM L5

=> s 15 sss full  
FULL SEARCH INITIATED 14:22:26 FILE 'REGISTRY'  
FULL SCREEN SEARCH COMPLETED - 109275 TO ITERATE

100.0% PROCESSED 109275 ITERATIONS  
SEARCH TIME: 00.00.02

36 ANSWERS

L7 36 SEA SSS FUL L5

=> FIL CAPLUS

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	161.33	341.29
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	0.00	-2.19

FILE 'CAPLUS' ENTERED AT 14:22:37 ON 14 MAR 2005  
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FILE COVERS 1907 - 14 Mar 2005 VOL 142 ISS 12  
FILE LAST UPDATED: 13 Mar 2005 (20050313/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s 17

L8

18 L7

=> FIL REGISTRY  
COST IN U.S. DOLLARS

SINCE FILE ENTRY	TOTAL SESSION
------------------	---------------

03/14/2005 10807710.trn

FULL ESTIMATED COST	1.80	343.09
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
CA SUBSCRIBER PRICE	ENTRY	SESSION
	0.00	-2.19

FILE 'REGISTRY' ENTERED AT 14:24:46 ON 14 MAR 2005  
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STRUCTURE FILE UPDATES: 13 MAR 2005 HIGHEST RN 845467-46-1  
DICTIONARY FILE UPDATES: 13 MAR 2005 HIGHEST RN 845467-46-1

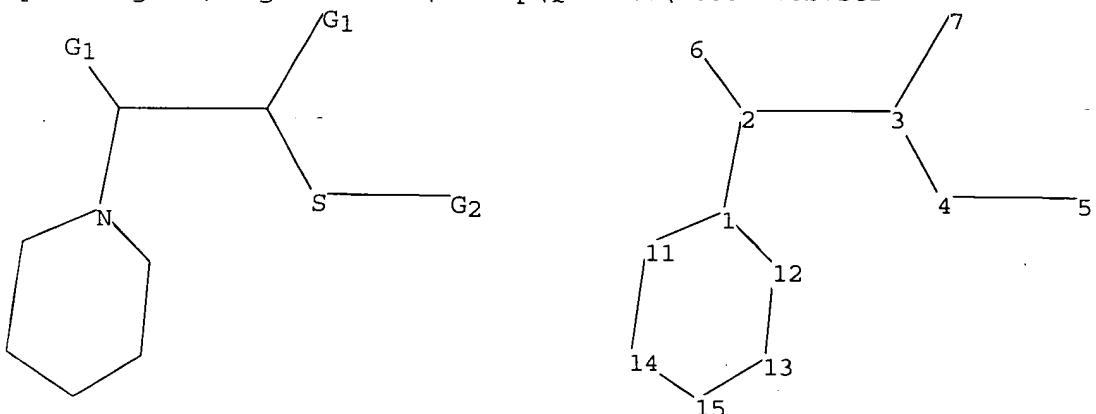
TSCA INFORMATION NOW CURRENT THROUGH JANUARY 18, 2005

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at:  
<http://www.cas.org/ONLINE/DBSS/registryss.html>

=>  
Uploading C:\Program Files\Stnexp\Queries\10807710b.str



chain nodes :  
2 3 4 5 6 7  
ring nodes :  
1 11 12 13 14 15  
chain bonds :  
1-2 2-3 2-6 3-4 3-7 4-5  
ring bonds :  
1-11 1-12 11-14 12-13 13-15 14-15  
exact/norm bonds :  
1-2 1-11 1-12 2-6 3-4 3-7 4-5 11-14 12-13 13-15 14-15  
exact bonds :  
2-3

03/14/2005 10807710.trn

isolated ring systems :  
containing 1 :

G1:Ak, Ph

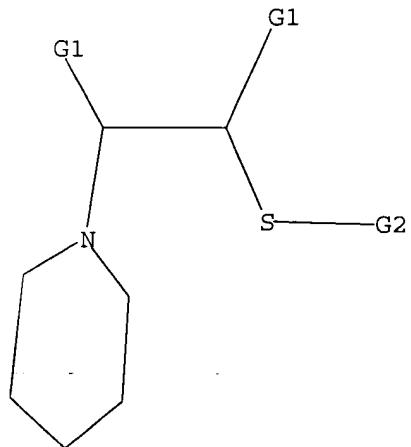
G2:H, CH3

Match level :

1:CLASS 2:CLASS 3:CLASS 4:CLASS 5:CLASS 6:CLASS 7:CLASS 11:CLASS 12:CLASS  
13:CLASS 14:CLASS 15:CLASS

L9 STRUCTURE UPLOADED

=> d 19  
L9 HAS NO ANSWERS  
L9 STR



G1 Ak, Ph

G2 H, Me

Structure attributes must be viewed using STN Express query preparation.

=> s 19  
SAMPLE SEARCH INITIATED 14:25:15 FILE 'REGISTRY'  
SAMPLE SCREEN SEARCH COMPLETED - 3163 TO ITERATE

31.6% PROCESSED 1000 ITERATIONS  
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)  
SEARCH TIME: 00.00.01

0 ANSWERS

FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*  
BATCH \*\*COMPLETE\*\*  
PROJECTED ITERATIONS: 59887 TO 66633  
PROJECTED ANSWERS: 0 TO 0

03/14/2005 10807710.trn

L10 0 SEA SSS SAM L9

=> s 19 sss full  
FULL SEARCH INITIATED 14:25:23 FILE 'REGISTRY'  
FULL SCREEN SEARCH COMPLETED - 62510 TO ITERATE

100.0% PROCESSED 62510 ITERATIONS  
SEARCH TIME: 00.00.01

17 ANSWERS  
      

L11 17 SEA SSS FUL L9

=> FIL CAPLUS  
COST IN U.S. DOLLARS SINCE FILE TOTAL  
FULL ESTIMATED COST ENTRY SESSION  
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) SINCE FILE TOTAL  
CA SUBSCRIBER PRICE ENTRY SESSION

	SINCE FILE	TOTAL
COST IN U.S. DOLLARS	ENTRY	SESSION
FULL ESTIMATED COST	161.33	504.42
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	ENTRY	SESSION
CA SUBSCRIBER PRICE	0.00	-2.19

FILE 'CAPLUS' ENTERED AT 14:25:32 ON 14 MAR 2005  
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FILE COVERS 1907 - 14 Mar 2005 VOL 142 ISS 12  
FILE LAST UPDATED: 13 Mar 2005 (20050313/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d his

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L3 4 S L1 SSS FULL

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L4 3 S L3

FILE 'REGISTRY' ENTERED AT 14:21:56 ON 14 MAR 2005  
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L6 0 S L5  
L7 36 S L5 SSS FULL

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L8 18 S L7

FILE 'REGISTRY' ENTERED AT 14:24:46 ON 14 MAR 2005  
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L11 17 S L9 SSS FULL

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L13 ANSWER 1 OF 17 CPLUS COPYRIGHT 2005 ACS on STN  
ACCESSION NUMBER: 1999:671830 CPLUS  
DOCUMENT NUMBER: 132:35935  
TITLE: Diastereomeric sulfinates derived from  
(L)-N-methylephedrine: synthesis, applications and  
rearrangements  
AUTHOR(S): Drabowicz, Jozef; Bujnicki, Bogdan; Biscarini, Paolo;  
Mikolajczyk, Marian  
CORPORATE SOURCE: Centre of Molecular and Macromolecular Studies, Polish  
Academy of Sciences, Lodz, 90-363, Pol.  
SOURCE: Tetrahedron: Asymmetry (1999), 10(16),  
3177-3187  
CODEN: TASYE3; ISSN: 0957-4166  
PUBLISHER: Elsevier Science Ltd.  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
OTHER SOURCE(S): CASREACT 132:35935

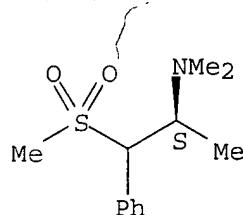
AB The reaction of sulfinyl chlorides with (L)-N-methylephedrine alone or in  
the presence of tertiary amines was found to produce diastereomeric  
sulfinates with diastereomeric purities up to 90%. The diastereomeric  
ratio is strongly influenced by the nature of substituents on the sulfinyl  
chlorides and to some extent by the reaction conditions. In a few cases,  
the pure diastereomers were isolated by chromatog. and used for the preparation  
of optically active sulfoxides. The silica gel catalyzed rearrangement of  
sulfinates to the corresponding sulfones is also discussed.

IT 252230-36-7P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(diastereomeric sulfinates derived from (L)-N-methylephedrine,  
synthesis, applications and rearrangements)  
RN 252230-36-7 CPLUS  
CN Benzeneethanamine, N,N, $\alpha$ -trimethyl- $\beta$ -(methylsulfonyl)-,  
( $\alpha$ S) - (9CI) (CA INDEX NAME)

Absolute stereochemistry.

03/14/2005

10807710.trn



REFERENCE COUNT:

30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 2 OF 17 CAPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 1995:809918 CAPLUS

DOCUMENT NUMBER: 123:286349

TITLE: Thiol and disulfide derivatives of Ephedra alkaloids.  
 2. A mechanistic study of their effect on the addition of diethylzinc to benzaldehyde

AUTHOR(S): Fitzpatrick, Kevin; Hulst, Ron; Kellogg, Richard M.

CORPORATE SOURCE: Dep. of Organic and Molecular Inorganic Chem., Univ. of Groningen, Groningen, 9747 AG, Neth.

SOURCE: Tetrahedron: Asymmetry (1995), 6(8), 1861-4  
 CODEN: TASYE3; ISSN: 0957-4166

PUBLISHER: Elsevier

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 123:286349

AB Non-linear correlations between the ee of the product, PhCH(OH)Et, and the catalyst, ephedrine thiol or disulfide derivs., were observed Osmotic measurements indicate a high degree of aggregation of the Zn thiolates. The behavior of the thiol derivs. deviates sharply from that of N-methylephedrine.

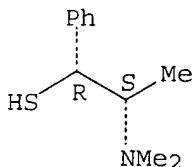
IT 2218-21-5

RL: CAT (Catalyst use); USES (Uses)  
 (effect of thiol and disulfide derivs. of ephedrine on addition of Et<sub>2</sub>Zn to benzaldehyde)

RN 2218-21-5 CAPIUS

CN Benzenemethanethiol,  $\alpha$ -[1-(dimethylamino)ethyl]-, hydrochloride,  
 [R-(R\*,S\*)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



● HCl

L13 ANSWER 3 OF 17 CAPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 1990:531411 CAPLUS

DOCUMENT NUMBER: 113:131411

TITLE: Concerning mass spectra of  $\beta$ -heterosubstituted thioethers

AUTHOR(S): Carreno, M. Carmen; Carretero, Juan C.; Garcia Ruano, Jose L.; Martinez, M. Carmen  
 CORPORATE SOURCE: Dep. Quim., Univ. Auton. Madrid, Madrid, 28049, Spain  
 SOURCE: Organic Mass Spectrometry (1990), 25(6), 339-42  
 CODEN: ORMSBG; ISSN: 0030-493X

DOCUMENT TYPE: Journal  
 LANGUAGE: English

AB The mass spectra of 32 erythro- and threo-RCHXCHRSMe ( $R = Me, Ph; X = F, Cl, Br, iodo, OH, OMe, OAc, NH_2, NMe_2$ ) were interpreted in detail. Linear free-energy relationships were determined between the ratio of the relative abundances of the  $RCHX^+$  and  $RCHSMe^+$  peaks and the inductive and resonance  $\sigma$  consts. of X.

IT 97241-41-3 97241-45-7 97241-46-8

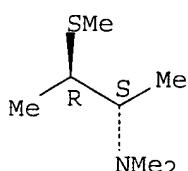
97241-47-9

RL: PRP (Properties)  
 (mass spectrum of)

RN 97241-41-3 CAPLUS

CN 2-Butanamine, N,N-dimethyl-3-(methylthio)-, ( $R^*, S^*$ ) - (9CI) (CA INDEX NAME)

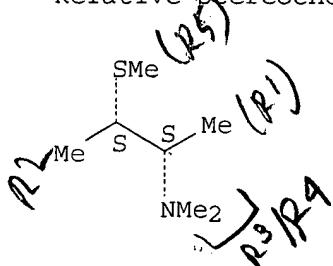
Relative stereochemistry.



RN 97241-45-7 CAPLUS

CN 2-Butanamine, N,N-dimethyl-3-(methylthio)-, ( $R^*, R^*$ ) - (9CI) (CA INDEX NAME)

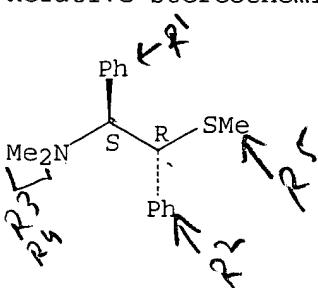
Relative stereochemistry.



RN 97241-46-8 CAPLUS

CN Benzeneethanamine, N,N-dimethyl-β-(methylthio)-α-phenyl-, ( $R^*, S^*$ ) - (9CI) (CA INDEX NAME)

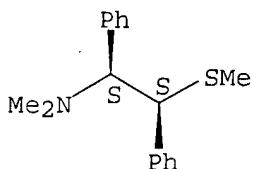
Relative stereochemistry.



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RN 97241-47-9 CAPLUS  
CN Benzenethanamine, N,N-dimethyl- $\beta$ -(methylthio)- $\alpha$ -phenyl-,  
(R\*,R\*)- (9CI) (CA INDEX NAME)

Relative stereochemistry.



L13 ANSWER 4 OF 17 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1990:458617 CAPLUS

DOCUMENT NUMBER: 113:58617

TITLE: Reactions of organic anions. 168. Reactions of 2-(dialkylamino)arylacetetonitriles with acetylenes under basic conditions. A simple synthesis of substituted mono- and diketones

AUTHOR(S): Zdrojewski, T.; Jonczyk, A.

CORPORATE SOURCE: Dep. Chem., Tech. Univ., Warsaw, PL-00-662, Pol.

SOURCE: Synthesis (1990), (3), 224-33

CODEN: SYNTBF; ISSN: 0039-7881

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 113:58617

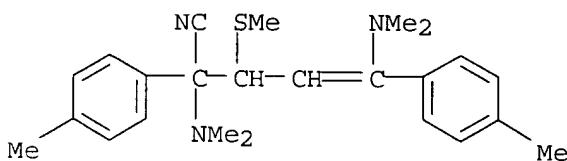
AB The reaction of RCH(CN)NR12 (I; R = Ph, 4-MeC6H4, 4-MeOC6H4; R1 = Me; NR12 = piperidino, morpholino, etc.) with R2C.tpbond.CH (II; R2 = Ph, MeS) gave R12NCR(CN)CH:CHR2 (III) and/or R12NCR(CN)CHR2CH:CRNR12; the product depended on the basicity of the amino group in III. I also added to C-1 of II (R2 = EtO) to give R12NCR(CN)C(OEt):CH2. All these products could be hydrolyzed to give mono- or diketones.

IT 128407-41-0P 128407-44-3P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(preparation and hydrolysis of)

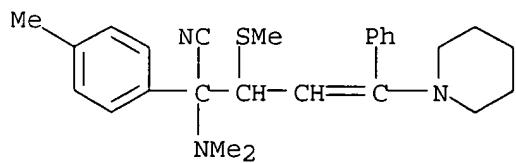
RN 128407-41-0 CAPLUS

CN Benzeneacetonitrile,  $\alpha$ -(dimethylamino)- $\alpha$ -[3-(dimethylamino)-3-(4-methylphenyl)-1-(methylthio)-2-propenyl]-4-methyl- (9CI) (CA INDEX NAME)



RN 128407-44-3 CAPLUS

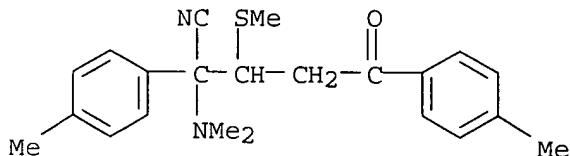
CN Benzeneacetonitrile,  $\alpha$ -(dimethylamino)-4-methyl- $\alpha$ -[1-(methylthio)-3-phenyl-3-(1-piperidinyl)-2-propenyl]- (9CI) (CA INDEX NAME)



IT 128407-50-1P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

RN 128407-50-1 CAPLUS

CN Benzenepentanenitrile,  $\alpha$ -(dimethylamino)-4-methyl- $\alpha$ -(4-methylphenyl)- $\beta$ -(methylthio)- $\delta$ -oxo- (9CI) (CA INDEX NAME)

L13 ANSWER 5 OF 17 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1985:505278 CAPLUS

DOCUMENT NUMBER: 103:105278

TITLE: L-Cysteine-, L-methionine- and D-penicillamine-derived ligands for transition metal catalyzed carbon-carbon bond-forming reactions

AUTHOR(S): Griffin, John H.; Kellogg, Richard M.

CORPORATE SOURCE: Dep. Org. Chem., Univ. Groningen, Groningen, 9747 AG, Neth.

SOURCE: Journal of Organic Chemistry (1985), 50(18), 3261-6

DOCUMENT TYPE: CODEN: JOCEAH; ISSN: 0022-3263

LANGUAGE: English

OTHER SOURCE(S): CASREACT 103:105278

AB L-Cysteine, L-methionine, and D-penicillamine were converted to their corresponding S-alkylated dimethylamino alcs. by alkylation of sulfur and nitrogen followed by reduction of the carboxyl group. One-pot mesylation followed by treatment with lithium diphenylphosphide provides the corresponding phosphine derivative, 2-(dimethylamino)-1-(diphenylphosphino)-3-(methylthio)propane (cysphos), the S-iso-Pr derivative (isopropylcycphos), 2-(dimethylamino)-1-(diphenylphosphino)-4-(methylthio)butane (methphos), and 2-(dimethylamino)-1-(diphenylphosphino)-3-methyl-3-(methylthio)butane (penphos). The latter ligand had an enantiomeric excess of 82%, whereas the other ligands are enantiomerically pure. These compds. were used as ligands for the solubilization of catalytic amts. of NiCl<sub>2</sub>, which is used to mediate the coupling of vinyl bromide with the (racemic) Grignard reagent or 1-phenyl-1-chloroethane to give 3-phenyl-1-butene in excellent yields and with enantiomeric excesses of up to 65% (methphos). The cross coupling of vinyl bromide to the Grignard reagent of 2-octyl chloride was also examined; enantiomeric excesses of 3-methyl-1-nonene of up to 18% are obtained (penphos).

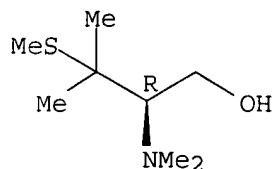
IT 97071-94-8P 97072-02-1P

RL: SPN (Synthetic preparation); PREP (Preparation)

03/14/2005 10807710.trn

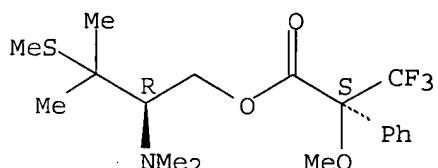
(preparation of)  
RN 97071-94-8 CAPLUS  
CN 1-Butanol, 2-(dimethylamino)-3-methyl-3-(methylthio)-, (R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



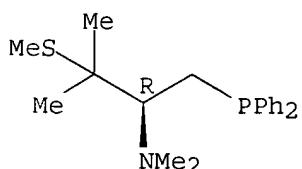
RN 97072-02-1 CAPLUS  
CN Benzeneacetic acid,  $\alpha$ -methoxy- $\alpha$ -(trifluoromethyl)-,  
2-(dimethylamino)-3-methyl-3-(methylthio)butyl ester, [S-(R\*,S\*)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 97071-99-3P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of, as ligand for asym. nickel-catalyzed crosscoupling of Grignard reagents with vinyl bromide)  
RN 97071-99-3 CAPLUS  
CN 2-Butanamine, 1-(diphenylphosphino)-N,N,3-trimethyl-3-(methylthio)-, (R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L13 ANSWER 6 OF 17 CAPLUS COPYRIGHT 2005 ACS on STN  
ACCESSION NUMBER: 1985:437072 CAPLUS  
DOCUMENT NUMBER: 103:37072  
TITLE: Syntheses of  $\beta$ -heterosubstituted thioethers  
AUTHOR(S): Carretero, J. Carlos; Garcia-Ruano, Jose L.; Martinez, M. Carmen; Rodriguez, Jesus H.  
CORPORATE SOURCE: Dep. Quim. Org., Univ. Auton. Madrid, Madrid, 28049, Spain  
SOURCE: Journal of Chemical Research, Synopses (1985), (1), 6-7

CODEN: JRPSDC; ISSN: 0308-2342

DOCUMENT TYPE:

Journal

LANGUAGE:

English

OTHER SOURCE(S):

CASREACT 103:37072

AB The thio ethers erythro- and threo-RCHR<sub>1</sub>CHRSMe (I; R = Me, Ph; R<sub>1</sub> = OH, OMe, F, Cl, Br, iodo, NH<sub>2</sub>, NMe<sub>2</sub>) were prepared starting from readily available substrates. I (R = Me, R<sub>1</sub> = OH) were readily prepared by treatment of the corresponding MeCHBrCHMeOH with NaSMe in MeOH at 0° for 3 h; the reaction occurs with retention of configuration. Treatment of I (R = Me, R<sub>1</sub> = OH) with HCl(g) in CHCl<sub>3</sub> at room temperature gave the corresponding I (R = Me, R<sub>1</sub> = Cl).

IT 97241-41-3P 97241-45-7P 97241-46-8P

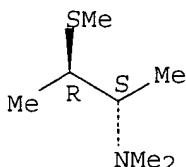
97241-47-9P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

RN 97241-41-3 CAPLUS

CN 2-Butanamine, N,N-dimethyl-3-(methylthio)-, (R\*,S\*)- (9CI) (CA INDEX NAME)

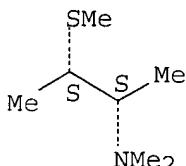
Relative stereochemistry.



RN 97241-45-7 CAPLUS

CN 2-Butanamine, N,N-dimethyl-3-(methylthio)-, (R\*,R\*)- (9CI) (CA INDEX NAME)

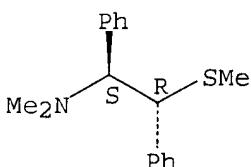
Relative stereochemistry.



RN 97241-46-8 CAPLUS

CN Benzeneethanamine, N,N-dimethyl-β-(methylthio)-α-phenyl-, (R\*,S\*)- (9CI) (CA INDEX NAME)

Relative stereochemistry.

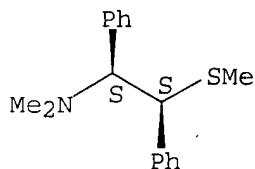


RN 97241-47-9 CAPLUS

CN Benzeneethanamine, N,N-dimethyl-β-(methylthio)-α-phenyl-,

(R\*,R\*)- (9CI) (CA INDEX NAME)

Relative stereochemistry.



L13 ANSWER 7 OF 17 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1984:562548 CAPLUS

DOCUMENT NUMBER: 101:162548

TITLE: Substituted cysteamine ligands and their complexes with molybdenum(VI)

AUTHOR(S): Corbin, James L.; Miller, Kenneth F.; Pariyadath, Narayananakutty; Heinecke, Jay; Bruce, Alice E.; Wherland, Scot; Stiefel, Edward I.

CORPORATE SOURCE: Charles F. Kettering Res. Lab., Yellow Springs, OH, 45387, USA

SOURCE: Inorganic Chemistry (1984), 23(21), 3404-12  
CODEN: INOCAJ; ISSN: 0020-1669

DOCUMENT TYPE: Journal

LANGUAGE: English

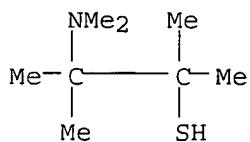
AB New bidentate cysteamine-based ligands containing Me-substituted C and N atoms were prepared. Together with known ligands the following complete set has now been prepared: NH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>SH, MeNHCH<sub>2</sub>CH<sub>2</sub>SH, Me<sub>2</sub>NCH<sub>2</sub>CH<sub>2</sub>SH, NH<sub>2</sub>C(CH<sub>3</sub>)<sub>2</sub>CH<sub>2</sub>SH, MeNHC(CH<sub>3</sub>)<sub>2</sub>CH<sub>2</sub>SH, Me<sub>2</sub>NC(CH<sub>3</sub>)<sub>2</sub>CH<sub>2</sub>SH, NH<sub>2</sub>CH<sub>2</sub>C(CH<sub>3</sub>)<sub>2</sub>SH, MeNHCH<sub>2</sub>C(CH<sub>3</sub>)<sub>2</sub>SH, Me<sub>2</sub>NCH<sub>2</sub>C(CH<sub>3</sub>)<sub>2</sub>SH, NH<sub>2</sub>C(CH<sub>3</sub>)<sub>2</sub>C(CH<sub>3</sub>)<sub>2</sub>SH, MeNHC(CH<sub>3</sub>)<sub>2</sub>C(CH<sub>3</sub>)<sub>2</sub>SH, and Me<sub>2</sub>NC(CH<sub>3</sub>)<sub>2</sub>C(CH<sub>3</sub>)<sub>2</sub>SH. Five of the ligands in this series are new, and their preparation is reported in detail. Also R NHCH<sub>2</sub>C(CH<sub>3</sub>)<sub>2</sub>SH ligands (R = iso-Pr and iso-Bu) are reported for the 1st time. These ligands, LH, were reacted in MeOH with MoO<sub>2</sub>(acac)<sub>2</sub> (Hacac = acetylacetone). In most cases MoO<sub>2</sub>L<sub>2</sub> resulted. However, in some cases this complex appears to be unstable. The preps. and spectroscopic properties of the complexes are reported. The low values of  $\nu$ (Mo-O) for some of the complexes are correlated either with H bonding or with the presence of a skew-trapezoidal-bipyramidal structure. Likewise, electronic absorption spectra differ for complexes with octahedral as opposed to skew-trapezoidal-bipyramidal structures. For a given complex, <sup>17</sup>O and <sup>1</sup>H NMR spectroscopies are consistent with adoption in solution of the same octahedral or skew-trapezoidal-bipyramidal structure that is found in the solid state. Further, the skew-trapezoidal-bipyramidal complexes display temperature-dependent NMR spectra that are interpreted in terms of configurational averaging probably caused by Mo-N bond cleavage.

IT 91229-44-6P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

RN 91229-44-6 CAPLUS

CN 2-Butanethiol, 3-(dimethylamino)-2,3-dimethyl-, hydrochloride (9CI) (CA INDEX NAME)



● HCl

L13 ANSWER 8 OF 17 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1982:216922 CAPLUS  
 DOCUMENT NUMBER: 96:216922  
 TITLE: Thioammonium ions. Azasulfenylation reactions  
 AUTHOR(S): Caserio, Marjorie C.; Kim, Jhong K.  
 CORPORATE SOURCE: Dep. Chem., Univ. California, Irvine, CA, 92717, USA  
 SOURCE: Journal of the American Chemical Society (1982  
 ), 104(11), 3231-3  
 CODEN: JACSAT; ISSN: 0002-7863  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 96:216922

AB Attempts to prepare elusive (alkylthio)ammonium ions have given evidence for their formation as reactive intermediates in alkylation of sulfenamides and in the sulfenylation of amines. In the presence of alkenes, (alkylthio)ammonium ions are trapped as 1-ammonium-2-thio adducts formed by anti-addition. These same adducts were obtained more conveniently in 2 steps: addition of (alkylthio)sulfonium ions to the alkene, followed by displacement of the sulfonium group by an amine nucleophile. The displacement step proceeds by the reversible dissociation of 1-sulfonium-2-thio adducts to episulfonium ions. The displacement reaction is general because the episulfonium ion can be trapped by a variety of nucleophiles.

IT 81206-95-3P 81206-97-5P

RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of)

RN 81206-95-3 CAPLUS

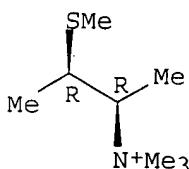
CN 2-Butanaminium, N,N,N-trimethyl-3-(methylthio)-, (R\*,R\*)-, tetrafluoroborate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 81206-94-2

CMF C8 H20 N S

Relative stereochemistry.



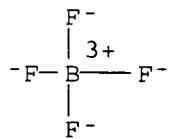
03/14/2005 10807710.trn

CM 2

CRN 14874-70-5

CMF B F4

CCI CCS



RN 81206-97-5 CAPLUS

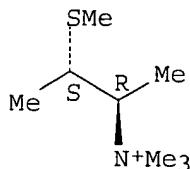
CN 2-Butanaminium, N,N,N-trimethyl-3-(methylthio)-, (R\*,S\*)-, tetrafluoroborate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 81206-96-4

CMF C8 H20 N S

Relative stereochemistry.

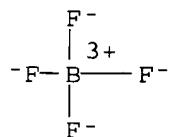


CM 2

CRN 14874-70-5

CMF B F4

CCI CCS



L13 ANSWER 9 OF 17 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1979:574952 CAPLUS

DOCUMENT NUMBER: 91:174952

TITLE: Thermolysis of Mannich bases from β-oxo sulfoxides, benzaldehyde and secondary amines

AUTHOR(S): Boehme, Horst; Clement, Bernd  
CORPORATE SOURCE: Pharm.-Chem. Inst., Philipps-Univ., Marburg, 355, Fed. Rep. Ger.

SOURCE: Archiv der Pharmazie (Weinheim, Germany) (1979), 312(6), 531-4

CODEN: ARPMAS; ISSN: 0365-6233

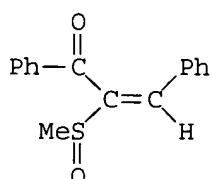
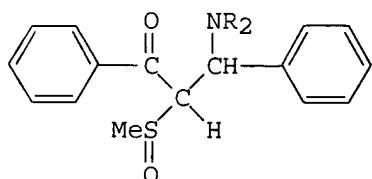
DOCUMENT TYPE:

Journal

LANGUAGE:

German

GI



AB Stable Mannich bases I [R = Me, R2 = (CH2)4, CH2CH2OCH2CH2] were obtained as mixts. of 4 diastereoisomeric forms, stipulated by the 3 chiral centers, by condensation of PhCOCH2S(O)Me with PhCHO and HNR2. Amine elimination occurred on heating I (R = Me) >180° to give a single (E) diastereomer of the propenone II.

IT 71679-36-2P 71698-77-6P 71698-78-7P

71698-79-8P

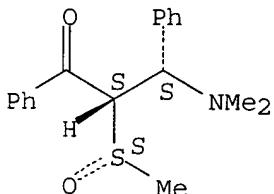
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and thermolysis of)

RN 71679-36-2 CAPLUS

CN 1-Propanone, 3-(dimethylamino)-2-(methylsulfinyl)-1,3-diphenyl-, [2R\*(R\*),3R\*]- (9CI) (CA INDEX NAME)

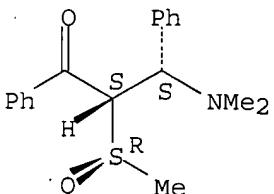
Relative stereochemistry.



RN 71698-77-6 CAPLUS

CN 1-Propanone, 3-(dimethylamino)-2-(methylsulfinyl)-1,3-diphenyl-, [2R\*(S\*),3R\*]- (9CI) (CA INDEX NAME)

Relative stereochemistry.



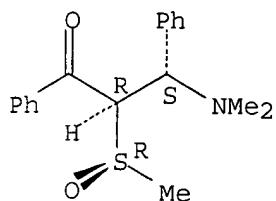
RN 71698-78-7 CAPLUS

CN 1-Propanone, 3-(dimethylamino)-2-(methylsulfinyl)-1,3-diphenyl-,

03/14/2005 10807710.trn

[2R\* (R\*) ,3S\*]- (9CI) (CA INDEX NAME)

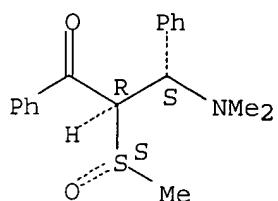
Relative stereochemistry.



RN 71698-79-8 CAPLUS

CN 1-Propanone, 3-(dimethylamino)-2-(methylsulfinyl)-1,3-diphenyl-,  
[2R\*(S\*),3S\*]- (9CI) (CA INDEX NAME)

Relative stereochemistry.



L13 ANSWER 10 OF 17 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1979:97354 CAPLUS

DOCUMENT NUMBER: 90:97354

TITLE: Studies on chemical protectors against radiation. XX.

Radioprotective mechanism of phenethylamine compounds

Shinoda, Masato; Onoda, Makoto; Sato, Kazunori;

Nemoto, Kyuichi; Kamogawa, Asahi

Hoshi Coll. Pharm., Tokyo, Japan

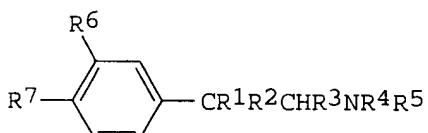
CORPORATE SOURCE: Yakugaku Zasshi (1978), 98(11), 1512-17

SOURCE: CODEN: YKKZAJ; ISSN: 0031-6903

DOCUMENT TYPE: Journal

LANGUAGE: Japanese

GI



I, R<sup>1</sup> and R<sup>2</sup> = H, OH, SH, SSO<sub>3</sub>H, or SC(:NH)NH<sub>2</sub>,

R<sup>3</sup> and R<sup>4</sup> = H or Me, R<sup>5</sup> = H, Ac, alkyl, NH<sub>2</sub>,  
or Bz, R<sup>6</sup> and R<sup>7</sup> = H or OH

AB Correlation between radioprotection by phenethylamines (I) and anoxia was

examined from their action on femoral artery blood flow and on blood pressure of the rat common carotid and isolated dorsal arteries. The radioprotection mechanism by vasoconstriction-anoxia was present in the phenethylamine-type and ephedrine-type compds., and possible participation of anoxia was suggested in some of S-ephedrine- and isothiourea-type compds. In disulfide- and thiosulfate-type compds., mechanisms other than anoxia were considered to be present.

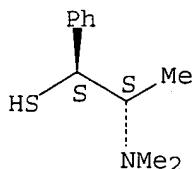
IT 942-48-3

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)  
(radioprotective activity of)

RN 942-48-3 CAPLUS

CN Benzenemethanethiol,  $\alpha$ -[1-(dimethylamino)ethyl]-, [S-(R\*,R\*)]- (9CI)  
(CA INDEX NAME)

Absolute stereochemistry.



L13 ANSWER 11 OF 17 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1978:31877 CAPLUS

DOCUMENT NUMBER: 88:31877

TITLE:  
Studies on chemical protectors against radiation.  
XVII. Radioprotective activities of phenethylamine compounds

AUTHOR(S): Shinoda, Masato; Ohta, Setsuko; Takagi, Yoshinari

CORPORATE SOURCE: Hoshi Coll. Pharm., Tokyo, Japan

SOURCE: Yakugaku Zasshi (1977), 97(10), 1117-24

CODEN: YKKZAJ; ISSN: 0031-6903

DOCUMENT TYPE: Journal

LANGUAGE: Japanese

AB The relation between chemical structure and radioprotective activity was examined with 80 phenethylamine compds. and various amines. A strong radioprotective effect was shown by phenethylamine-HCl [156-28-5] and by tyramine-HCl [60-19-5], dopamine-HCl [62-31-7], norepinephrine [51-41-2], and epinephrine-HCl [55-31-2], which have a phenolic hydroxyl in their mol., but the corresponding amino acids were ineffective. Only a weak effect was shown by the ephedrine isomers, but a markedly strong effect was shown by compds. with a side chain substituted with SH, isothiourea, or thiosulfuric acid, and by the S-S ephedrine compds. Comparison of the isomers of these compds. showed that the L-erythro type compds. were more effective.

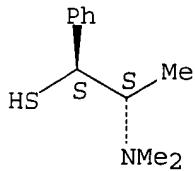
IT 942-50-7

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)  
(radioprotective activity of)

RN 942-50-7 CAPLUS

CN Benzenemethanethiol,  $\alpha$ -[1-(dimethylamino)ethyl]-, hydrochloride,  
[S-(R\*,R\*)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



● HCl

L13 ANSWER 12 OF 17 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1965:410290 CAPLUS

DOCUMENT NUMBER: 63:10290

ORIGINAL REFERENCE NO.: 63:1821h,1822f-h,1823a-c

TITLE: Potential radiation-protective agents. III. Mercapto analogs related to ephedrine

AUTHOR(S): Bhat, K. Venkatramana; McCarthy, Walter C.

CORPORATE SOURCE: Univ. of Washington, Seattle

SOURCE: Journal of Pharmaceutical Sciences (1965), 54(2), 225-8

CODEN: JPMSAE; ISSN: 0022-3549

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 63:10290

AB cf. CA 62, 5214f. Since certain sympathomimetic amines have been shown to possess radiation protective activity, the mercapto analogs related to ephedrine were selected for investigation. (+)-PhCHClCHMeNHMe.HCl (I.HCl) (19 g.) and 21.4 g. Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>.5H<sub>2</sub>O dissolved in 40 ml. hot H<sub>2</sub>O and the solution let stand 1 hr., heated 2 hrs. on a water bath, and cooled gave 20.5 g. Bunte salt PhCH(S<sub>2</sub>O<sub>3</sub>-)CHMeN+H<sub>2</sub>Me (II), m. 186-7° (H<sub>2</sub>O), [α]25D 221° (c 1, H<sub>2</sub>O). To 22 g. (I.HCl) in 150 ml. anhydrous MeOH was added 23 ml. MeOH-MeONa (10% Na weight/volume), followed by MeCOSNa solution [prepared from 7.5 ml. MeCOSH and 23 ml. MeOH-MeONa (10% Na weight/volume)], the mixture refluxed 3 hrs. and filtered, and the filtrate evaporated in vacuo (rotary evaporator) to give 9.5 g. (+)-PhCH(SH)CHMeNMeAc (III), m. 112-13° (dilute EtOH), [α]25D 190° (c 1, EtOH). Oxidation of (+)-III with iodine gave (+)-(AcMeNCHMeCHPhS)<sub>2</sub> (IV), m. 172-3° (dilute EtOH), [α]25D 390° (c 1, 95% EtOH).

(+) -III (5.6 g.) in 50 ml. EtOH refluxed 3 hrs. with 25 ml. concentrated HCl

and

the solution evaporated in vacuo (rotary evaporator) gave 4.5 g. unchanged (+)-III, m. 112-13° (dilute EtOH). (+)-III (5.6 g.) in 100 ml. 20% aqueous NaOH refluxed 24 hrs., cooled, and saturated with CO<sub>2</sub> gave [by air oxidation

of (+)-III] 3.2 g. (+)-IV, m. 172-3° (dilute EtOH). (+)-IV (4.5 g.) extracted from the thimble of a Soxhlet extractor by a refluxing solution of

1.8

g. LiAlH<sub>4</sub> in 275 ml. Et<sub>2</sub>O [after 72 hrs. all (+)-IV had been extracted], 0.9 ml. H<sub>2</sub>O added dropwise with stirring, then 4.9 ml. concentrated HCl, the precipitate

filtered off, extracted with Et<sub>2</sub>O, the extract filtered, the combined filtrates dried and evaporated in vacuo (rotary evaporator), and the semisolid residue recrystd. (EtOH) gave 2 g. (EtMeNCHMeCHPhS)<sub>2</sub>, m. 160-1°, [α]25D 715° (c 1, C<sub>6</sub>H<sub>6</sub>). (+)-I.HCl (22 g.) in 200 ml. absolute EtOH treated with 46 ml. EtOH-EtONa (5% Na weight/volume), followed by 16 g. EtOCS<sub>2</sub>K, and the mixture heated 3 hrs. on a steam bath and worked up gave 6

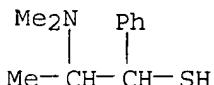
g. (-)-3,4-dimethyl-5-phenylthiazolidine-2-thione (V), m. 65-6° (iso-Pr<sub>2</sub>O), [α]25D -155° (c 1, EtOH), which was resistant to hydrolysis by boiling 48% HBr. (-)-V (8 g.) in 200 ml. anhydrous Et<sub>2</sub>O added dropwise to 3.79 g. LiAlH<sub>4</sub> in 100 ml. Et<sub>2</sub>O and the solution refluxed 90 hrs., hydrolyzed by adding dropwise 7.2 ml. H<sub>2</sub>O and 9.7 ml. concentrated HCl, and worked up gave 4.5 g. (+)-PhCH(SH)CHMeNMe<sub>2</sub>, m. 75-6° (absolute EtOH), [α]25D 150° (c 1, 0.1N HCl), which oxidized in EtOH with 1% iodine solution gave (+)-(Me<sub>2</sub>NCHMeCHPhS)<sub>2</sub>, m. 196-7° (EtOH), [α]25D 300° (c 1, 0.1N HCl). Chloral (15 g.) added dropwise to 16.5 g. (-)-ephedrine (VI) with stirring and ice cooling and the mixture stirred 2 hrs. at room temperature and concentrated in vacuo (rotary evaporator) gave a mixture of oil and crystalline solid; recrystn. of the solid from absolute EtOH gave 1 g. (-)-VI·HCl, m. 217-18°; distillation of the oil gave 6 g. N-formyl-(-)-ephedrine (VII), b<sub>1</sub> 168-74°, ν 1665 cm.<sup>-1</sup> Excess SOCl<sub>2</sub> added dropwise to VII with stirring and ice cooling and the mixture stirred 1.5 hrs. at room temperature and worked up gave (+)-pseudoephedrine-HCl (VIII·HCl), m. 182-3°, [α]25D 60° (c 1, H<sub>2</sub>O). SOCl<sub>2</sub> (1.13 ml.) added dropwise to an ice cold solution of 2.07 g. N-acetylephedrine in 100 ml. CHCl<sub>3</sub> and the mixture stirred 30 min. at room temperature, heated 30 min. on a water bath, and worked up gave 1.5 g. O-acetyl-(+)-pseudo-ephedrine-HCl, m. 185-6° (iso-PrOH), [α]25D 98° (c 1, H<sub>2</sub>O). A mixture of 10.7 g. (-)-VI·H<sub>2</sub>SO<sub>4</sub> and 12 g. 4-MeC<sub>6</sub>H<sub>4</sub>SO<sub>2</sub>Cl (IX) shaken with 60 ml. 10% aqueous NaOH and cooled in ice gave 13 g. N-p-tolylsulfonyl-(-)-ephedrine (X), m. 117-18° (60% EtOH), [α]25D -27.5° (c 1, 95% EtOH), ν 3570 cm.<sup>-1</sup> Similar tosylation of VIII·HCl gave 84% N-p-tolylsulfonyl-(+)-pseudo-ephedrine, m. 93-4.5°, [α]25D 25° (c 1, 95% EtOH). X (3.2 g.) and 2.5 g. IX in 8 ml. C5H<sub>5</sub>N stirred 4 hrs. at room temperature and worked up gave 94% unchanged X, m. 117-18°. When the mixture was heated at 80°, unchanged X was also recovered. Refluxing the mixture gave an oil, which could not be crystallized. Neither II, when administered to mice in a dosage of 51-150 mg./kg., nor 3,4-dimethyl-5-phenyl-2-iminothiazolidine-HCl (McCarthy and Ho, CA 56, 8612f), when administered to mice in a dose of 50 mg./kg, or less, showed protective activity against radiation.

IT 91341-40-1, α-Toluenethiol, α-[1-(dimethylamino)ethyl]-  
(+)-

(preparation of)

RN 91341-40-1 CAPLUS

CN α-Toluenethiol, α-[1-(dimethylamino)ethyl]- (6CI, 7CI) (CA INDEX NAME)



L13 ANSWER 13 OF 17 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1965:74011 CAPLUS

DOCUMENT NUMBER: 62:74011

ORIGINAL REFERENCE NO.: 62:13088a-d

TITLE: 1-Substituted 2-aminoethane derivatives

INVENTOR(S): Takamatsu, Hideji; Nishimura, Haruki

PATENT ASSIGNEE(S): Dainippon Pharmaceutical Co., Ltd.

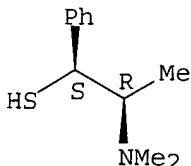
SOURCE: 2 pp.

DOCUMENT TYPE: Patent

LANGUAGE: Unavailable  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	JP 39022953		19641015	JP	19610415 <--
AB	A mixture of 4 g. erythro-1-phenyl-1-dimethylamino-2-chloropropane-HCl (I) and 5.9 g. K thioacetate is refluxed in 60 cc. MeOH 30 min. to give 2.0 g. erythro-1-phenyl-1-mercaptopropane (Ia), b7 109-12°. I (1.9 g.) is refluxed in 30 cc. 10% NaOH 2.5 hrs. to give 1.1 g. erythro-1-phenyl-2-dimethylaminopropanol (hydrochloride m. 206-7°). I (3.3 g.) is heated with 3.55 g. Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> , in 10 cc. H <sub>2</sub> O with steam 15 min. to give erythro-1-phenyl-2-dimethylaminopropane-1-thiosulfuric acid (II) m. 207-8° (decomposition). II (3 g.) is refluxed in 30 cc. 10% HCl 1.5 hrs., the product alkalized with Na <sub>2</sub> CO <sub>3</sub> and extracted with ether to give 1.8 g. Ia, b3 80°. Similarly, other compds. prepared were (starting material, reagent and yield, name, and m.p. of the product given): 1-phenyl-1-dimethylamino-2-chloroethane-HCl (III) 1.5 g., K thioacetate, 1.2 g. 1-phenyl-1-mercaptopropane-HCl, 190° (decomposition); III 8 g., Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> , 8 g., 1-phenyl-2-dimethylaminoethane-1-thiosulfuric acid, 208° (decomposition); III 2 g., Na <sub>2</sub> S reagent (7.2 g. Na <sub>2</sub> S + 10 cc. H <sub>2</sub> O + 20 cc. MeOH saturated with H <sub>2</sub> S) (reaction condition heated with steam 30 min.), 1.1 g., 1-phenyl-1-mercaptopropane hydrochloride, 191° (decomposition); III 1 g., 10% NaOH, 0.3 g., 1-phenyl-2-dimethylaminoethanol-HCl, --; threo-1-phenyl-1-methylamino-2-chloropropane-HCl (IV) 1 g., Na <sub>2</sub> S reagent, 0.6 g., threo-1-phenyl-1-mercaptopropane, -- (b2 93-6°); IV 5 g., Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> , 4 g., threo-1-phenyl-2-methylaminopropane-1-thiosulfuric acid (V), 190° (decomposition); erythro isomer of IV 1.85 g., Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> , 1.7 g. erythro isomer of V, 239° (decomposition); erythro isomer of IV 1.3 g., K thioacetate, acetyl derivative (VI) of erythro-1-phenyl-1-mercaptopropane (VII), -- (VI is heated with 20% HCl in a sealed tube at 140-5° 3 hrs. to give 0.4 g. VII, b6 104°). These compds. are useful as antispasmodics.				
IT	942-47-2, α-Toluenethiol, α-[1-(dimethylamino)ethyl]-, erythro-				
	(preparation of)				
RN	942-47-2 CAPLUS				
CN	α-Toluenethiol, α-[1-(dimethylamino)ethyl]-, erythro- (8CI) (CA INDEX NAME)				

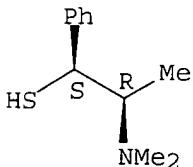
Relative stereochemistry.



L13 ANSWER 14 OF 17 CAPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 1965:8905 CAPLUS  
 DOCUMENT NUMBER: 62:8905  
 ORIGINAL REFERENCE NO.: 62:1588c-e  
 TITLE: Phenylmercaptoalkylamines. IV. Configurations of N-alkyl-1-phenyl-2-chloropropylamines and their

AUTHOR(S) : rearrangements with nucleophilic reagents  
 Nishimura, Haruki; Takamatsu, Hideji  
 CORPORATE SOURCE: Dainippon Pharm. Co., Ltd., Osaka, Japan  
 SOURCE: Yakugaku Zasshi (1964), 84(9), 817-24  
 CODEN: YKKZAJ; ISSN: 0031-6903  
 DOCUMENT TYPE: Journal  
 LANGUAGE: Japanese  
 AB Treatment of DL-erythro-1-methylamino-1-phenyl-2-propanol (I) with SOCl<sub>2</sub> gives erythro-N-methyl-1-phenyl-2-chloropropylamine-HCl (II), m. 210° (decomposition), while treatment of I with PCl<sub>5</sub> gives the corresponding threo compound (IIa), m. 150-3°. Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub> and II and IIa gives erythro-1-phenyl-2-methylaminopropylthiosulfonic acid (III) [m. 239° (decomposition)] and the corresponding threo compound (IIIa) [m. 199-200° (decomposition)], resp. This reaction proceeds with two Walden inversions via the intermediate aziridinium compound. Treatment of II and IIa with NaOH affords DL-threo-3-phenyl-1,2-dimethylaziridine (picrate m. 142-4°) and the corresponding erythro compound (picrate m. 97.5-8.5°), resp. Also is prepared erythro-N,N-dimethyl-1-phenyl-2-chloropropylamine-HCl (m. 169-70°) by chlorination of erythro-1-dimethylamino-1-phenyl-2-propanol-HCl with PCl<sub>5</sub>; no threo-type Cl derivative is obtained.  
 IT 942-47-2, α-Toluenethiol, α-[1-(dimethylamino)ethyl]-, erythro- (preparation of)  
 RN 942-47-2 CAPLUS  
 CN α-Toluenethiol, α-[1-(dimethylamino)ethyl]-, erythro- (8CI) (CA INDEX NAME)

Relative stereochemistry.



L13 ANSWER 15 OF 17 CAPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 1965:8904 CAPLUS  
 DOCUMENT NUMBER: 62:8904  
 ORIGINAL REFERENCE NO.: 62:1588a-c  
 TITLE: Phenylmercaptoalkylamines. III. Hofmann degradation of 1-phenyl-2-dimethylaminopropanethiol quaternary salts  
 AUTHOR(S) : Nishimura, Haruki; Takamatsu, Hideji  
 CORPORATE SOURCE: Dainippon Pharm. Co., Ltd., Osaka, Japan  
 SOURCE: Yakugaku Zasshi (1964), 84(9), 811-17  
 CODEN: YKKZAJ; ISSN: 0031-6903  
 DOCUMENT TYPE: Journal  
 LANGUAGE: Japanese  
 AB Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub> and L-(+)-threo-N,N-dimethyl-1-chloro-1-phenyl-2-propylamine-HCl, followed by hydrolysis, gave (+)-1-phenyl-2-dimethylaminopropanethiol (I), which was then converted into the methiodide and treated with NaOH to form (+)-1,2-epithiopropylbenzene (II), b<sub>10</sub> 100°, which was polymerized to give a polymer, m. 255-6°. Treatment of D-(+)-erythro-1,2-epoxypropylbenzene with KSCN gave L-(-)-erythro-1,2-epithiopropylbenzene, b<sub>7</sub> 92-3°, [α]D<sub>21</sub> 21.4° (c 2.21, MeOH), which was found to be the antipode of II. II belongs to the D-(+)-erythro series and I,

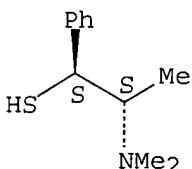
to the L-(+)-threo series. The (-)-amino thiol, similarly derived from L-(-)-erythro-N,N-dimethyl-1-chloro-1-phenyl-2-propylamine-HCl, was found to belong to the L-(-)-erythro series and that D-(+)-threo-1,2-epithiopropylbenzene (III) is derived from it. The steric configuration of II and III was also determined from their N.M.R. spectra. Hofmann degradation of the quaternary salt of 1-phenyl-2-dimethylaminoethanethiol also gave the same result. II and III underwent desulfurization by heating to give trans- $\beta$ -methylstyrene.

IT 942-50-7,  $\alpha$ -Toluenethiol,  $\alpha$ -[1-(dimethylamino)ethyl]-, hydrochloride, L(+)-threo- (preparation of)

RN 942-50-7 CAPLUS

CN Benzenemethanethiol,  $\alpha$ -[1-(dimethylamino)ethyl]-, hydrochloride, [S-(R\*,R\*)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



● HCl

L13 ANSWER 16 OF 17 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1965:8903 CAPLUS

DOCUMENT NUMBER: 62:8903

ORIGINAL REFERENCE NO.: 62:1587h,1588a

TITLE: Phenylmercaptoalkylamines. II. Configuration of 1-phenyl-2-alkylaminopropanethiol

AUTHOR(S): Nishimura, Haruki; Takamatsu, Hideji

CORPORATE SOURCE: Dainippon Pharm. Co., Ltd., Osaka, Japan

SOURCE: Yakugaku Zasshi (1964), 84(9), 806-11

CODEN: YKKZAJ; ISSN: 0031-6903

DOCUMENT TYPE: Journal

LANGUAGE: Japanese

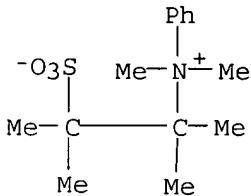
AB From the strength of the H bond between N and SH in the ir absorption spectra of (+)- (I) and (-)-1-phenyl-2-dimethylaminopropanethiol (Ia), obtained by treating Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub> with L-(+)-threo- (II) and L-(-)-erythro-N,N-dimethyl-1-chloro-1-phenyl-2-propylamine-HCl (IIa) followed by hydrolysis, it was assumed that I belongs to the threo series and Ia, to the erythro series. I is also obtained by treating AcSK or NaSH with II or by treating (NH<sub>2</sub>)<sub>2</sub>CS with II followed by alkali treatment of the isothiuronium salt formed. Similarly, the steric configurations of 2-1-phenyl-2-methylaminopropanethiols and 2-imino-3,4-dimethyl-5-phenylthiazolidines, derived from L-(+)-threo- (III) and L-(-)-erythro-N-methyl-1-chloro-1-phenyl-2-propylamine hydrochlorides (IIIa) by use of foregoing reagents, were determined. Use of nucleophilic reagents to II, IIa, III, and IIIa afforded derivs. without change in their steric configuration.

IT 942-48-3,  $\alpha$ -Toluenethiol,  $\alpha$ -[1-(dimethylamino)ethyl]-, L(+)-threo- 942-49-4,  $\alpha$ -Toluenethiol,  $\alpha$ -[1-(dimethylamino)ethyl]-, L(-)-erythro- 942-50-7,

LANGUAGE: Unavailable  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3131189		19640428	US	19611016 <--

GI For diagram(s), see printed CA Issue.  
 AB Carbyl sulfate (I), prepared by the reaction of 2 moles SO<sub>3</sub> and 1 mole ethylene, reacted with a tertiary amine to form betaines. Thus 1.5 g. pyridine (II) in 10 ml. ethylene dichloride was added to 3 g. I in 30 ml. ethylene dichloride (the reaction was exothermic), the liquid decanted from the precipitate, and the precipitate covered with petr. ether and cooled to give  
 IIa (R = R<sub>1</sub> = H), m. 250-5° (HCONMe<sub>2</sub>). I was also treated with the following to form betaines: quinoline, acridine, trimethylamine, and dimethylaniline (III). Also reported without details were: IIa (R = Ph, R<sub>1</sub> = H); Et<sub>3</sub>NCH<sub>2</sub>SO<sub>3</sub>; IIa (R = R<sub>1</sub> = Me); and PhNMe<sub>2</sub>CMe<sub>2</sub>CMe<sub>2</sub>SO<sub>3</sub>. These compds. are useful intermediates for the preparation of detergents. (Cf. U.S. 2,666,788, or Brit. 686,061.)  
 IT 97176-62-0, Ammonium, dimethylphenyl(1,1,2-trimethyl-2-sulfopropyl), hydroxide, inner salt  
     (preparation of)  
 RN 97176-62-0 CAPLUS  
 CN Dimethylphenyl(1,1,2-trimethyl-2-sulfopropyl)ammonium hydroxide, inner salt (7CI) (CA INDEX NAME)



=> d 114 ibib abs hitstr tot

L14 ANSWER 1 OF 17 CAPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 2001:821889 CAPLUS  
 DOCUMENT NUMBER: 136:118295  
 TITLE: Stereoselective synthesis of  $\delta$ -lactones from 5-oxoalkanals via one-pot sequential acetalization, Tishchenko reaction, and lactonization by cooperative catalysis of samarium ion and mercaptan  
 AUTHOR(S): Hsu, Jue-Liang; Fang, Jim-Min  
 CORPORATE SOURCE: Department of Chemistry, National Taiwan University, Taipei, 106, Taiwan  
 SOURCE: Journal of Organic Chemistry (2001), 66(25), 8573-8584  
 CODEN: JOCEAH; ISSN: 0022-3263  
 PUBLISHER: American Chemical Society  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 AB By the synergistic catalysis of samarium ion and mercaptan, a series of 5-oxoalkanals was converted to (substituted)  $\delta$ -lactones in efficient and stereoselective manners. This one-pot procedure comprises a sequence

of acetalization, Tishchenko reaction and lactonization. The deliberative use of mercaptan, by comparison with alc., is advantageous to facilitate the catalytic cycle. The reaction mechanism and stereochem. are proposed and supported by some exptl. evidence. Such samarium ion/mercaptan cocatalyzed reactions show the feature of remote control, which is applicable to the asym. synthesis of optically active  $\delta$ -lactones. This study also demonstrates the synthesis of two insect pheromones, (2S,5R)-2-methylhexanolide and (R)-hexadecanolide, as examples of a new protocol for asym. reduction of long-chain aliphatic ketones.

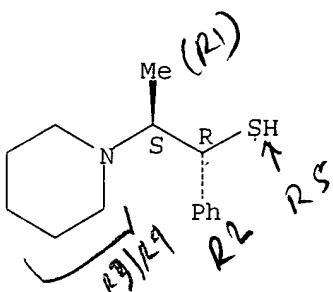
IT 166031-49-8P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(one-pot sequential acetalization, Tishchenko reaction, and lactonization by the promotion of samarium ion and mercaptans in stereoselective synthesis of  $\delta$ -lactones from 5-oxoalkanals)

RN 166031-49-8 CAPLUS

CN 1-Piperidineethanethiol,  $\beta$ -methyl- $\alpha$ -phenyl-,  
( $\alpha$ R, $\beta$ S) - (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



REFERENCE COUNT:

104 THERE ARE 104 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 2 OF 17 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2001:508661 CAPLUS

DOCUMENT NUMBER: 135:256816

TITLE: A purely synthetic, diversity amenable version of norephedrine thiols for the highly enantioselective diethylzinc addition to aldehydes

AUTHOR(S): Jimeno, Ciril; Moyano, Albert; Pericas, Miquel A.; Riera, Antoni

CORPORATE SOURCE: Unitat Recerca Sintesi Asimetrica, Dep. Quim. Org., Universitat de Barcelona, Barcelona, E-08028, Spain

SOURCE: Synlett (2001), (7), 1155-1157  
CODEN: SYNLES; ISSN: 0936-5214

PUBLISHER: Georg Thieme Verlag

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 135:256816

AB A new  $\beta$ -amino thiol arising from purely synthetic yet enantiopure amino alc. has been prepared and successfully used in the addition of diethylzinc to aromatic aldehydes, yielding secondary alc. in ee's up to 99%.

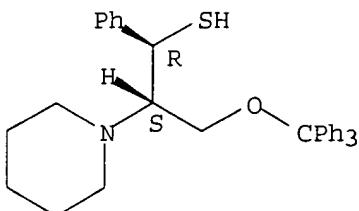
IT 361543-74-0P

RL: CAT (Catalyst use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)  
(enantioselective diethylzinc addition to aldehydes catalyzed by  $\beta$ -amino thiols)

RN 361543-74-0 CAPLUS

CN 1-Piperidineethanethiol,  $\alpha$ -phenyl- $\beta$ -[(triphenylmethoxy)methyl]-,  
( $\alpha R, \beta S$ ) - (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



REFERENCE COUNT: 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 3 OF 17 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1999:296019 CAPLUS

DOCUMENT NUMBER: 130:312007

TITLE: A concise synthesis of unnatural (+)-5-epi-nojirimycin- $\delta$ -lactam via asymmetric reduction of a meso-imide

AUTHOR(S): Kang, Jahyo; Lee, Choon Woo; Lim, Geun Jho; Cho, Byung Tae

CORPORATE SOURCE: Department of Chemistry, Sogang University, Seoul, 121-742, S. Korea

SOURCE: Tetrahedron: Asymmetry (1999), 10(4), 657-660

CODEN: TASYE3; ISSN: 0957-4166  
PUBLISHER: Elsevier Science Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 130:312007

AB Nojirimycin- $\delta$ -lactam skeleton was synthesized by asym. reduction of a cyclic triacetoxy meso imide with a chiral  $\beta$ -amino thiol ligand. The resulting product was converted to unnatural (+)-5-epi-nojirimycin- $\delta$ -lactam.

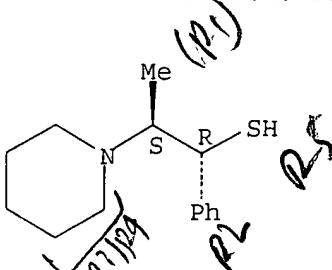
IT 166031-49-8

RL: RCT (Reactant); RACT (Reactant or reagent)  
(a concise synthesis of unnatural (+)-epi-nojirimycin- $\delta$ -lactam via asym. reduction of a meso-imide)

RN 166031-49-8 CAPLUS

CN 1-Piperidineethanethiol,  $\beta$ -methyl- $\alpha$ -phenyl-,  
( $\alpha R, \beta S$ ) - (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

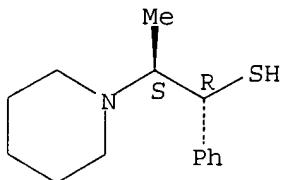


REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 4 OF 17 CAPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 1998:801743 CAPLUS  
 DOCUMENT NUMBER: 130:153758  
 TITLE: Asymmetric synthesis of (diene)Fe(CO)<sub>3</sub> complexes by a catalytic enantioselective alkylation using dialkylzincs  
 AUTHOR(S): Takemoto, Yoshiji; Baba, Yasutaka; Honda, Asami; Nakao, Syusuke; Noguchi, Izumi; Iwata, Chuzo; Tanaka, Tetsuaki; Ibuka, Toshiro  
 CORPORATE SOURCE: Graduate School of Pharmaceutical Sciences, Kyoto University, Kyoto, 606-8501, Japan  
 SOURCE: Tetrahedron (1998), 54(51), 15567-15580  
 CODEN: TETRAB; ISSN: 0040-4020  
 PUBLISHER: Elsevier Science Ltd.  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 130:153758  
 AB The reaction of meso-(2,4-hexadien-1,6-dial)Fe(CO)<sub>3</sub> complex (1) with several alkylzincs in the presence of 50 mol% of (S)-(+)-diphenyl(1-methylpyrrolidin-2-yl)methanol proceeded with high enantiotopic group- and diastereotopic face-selectivity to give (2R,6S)-alc. complexes as major products, except in the case with dimethylzinc (>90% de and >98% ee). On the other hand, the methylation of 1 with Me<sub>2</sub>Zn proceeded with high enantioselectivity by adding 1.8 equivalent of Ti(O*i*-Pr)<sub>4</sub> in the presence of 3 mol% of (S,S)-1,2-bis(trifluoromethylsulfonamide)cyclohexane (82% de, 96% ee). The enantioselective alkylation was also applied to the kinetic resolution of racemic (sorbic aldehyde)Fe(CO)<sub>3</sub> complex.  
 IT 166031-49-8  
 RL: CAT (Catalyst use); USES (Uses)  
 (asym. synthesis of diene iron tricarbonyl complexes by catalytic enantioselective alkylation using dialkylzincs)  
 RN 166031-49-8 CAPLUS  
 CN 1-Piperidineethanethiol,  $\beta$ -methyl- $\alpha$ -phenyl-, ( $\alpha$ R, $\beta$ S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



REFERENCE COUNT: 36 THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 5 OF 17 CAPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 1998:632164 CAPLUS  
 DOCUMENT NUMBER: 129:343594  
 TITLE: Structural chemistry of methyl- and allylpalladium(II) complexes containing chiral thioether auxiliaries  
 AUTHOR(S): Boog-Wick, Karin; Pregosin, Paul S.; Woerle, Michael; Albinati, Alberto  
 CORPORATE SOURCE: Lab. Anorganische Chem., ETH Zentrum Zuerich, Zurich,

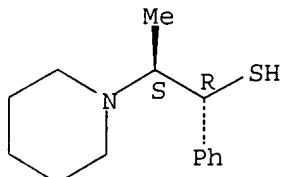
SOURCE: CH-8092, Switz.  
 Helvetica Chimica Acta (1998), 81(9),  
 1622-1633  
 CODEN: HCACAV; ISSN: 0018-019X  
 PUBLISHER: Verlag Helvetica Chimica Acta AG  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 129:343594

AB The synthesis and mol. structures of two [PdCl(Me)] complexes each containing a different chiral N,S-chelate based on {[(dihydrooxazolyl)phenyl]methyl}t hioglucose backbones, i.e., chloro{2-[(4S)-4,5-dihydro-4-isopropylloxazol-2-yl- $\kappa$ N]phenyl)methyl 2,3,4,6-tetra-O-acetyl-1-(thio- $\kappa$ S)- $\beta$ -D-glucopyranoside}methylpalladium(II) and a [Pd( $\eta$ 3-C3H5)(PS)]<sup>+</sup> cation in which the P,S-chelate stems from a phosphinoferrocene and thioephedrine-derived thioether donor as well as [(S)-1-(diphenylphosphino- $\kappa$ P)-2-((1R)-1-{[(1R,2S)-1-phenyl-2-(piperidin-1-yl)propyl]thio- $\kappa$ S}ethyl)ferrocene]( $\eta$ 3-prop-2-enyl)palladium trifluoromethanesulfonate are reported. In the methylpalladium compds. the thioglucose- $\kappa$ S moiety is pseudo-axial, whereas in the allyl complex, the thioephedrine- $\kappa$ S moiety is markedly pseudo-equatorial. It is suggested, based on these results, that the shape (chiral pocket) of such coordinated chiral thioethers may not be readily predictable.

IT 166031-49-8  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (preparation of methyl- and allylpalladium complexes with chiral thioether moieties)

RN 166031-49-8 CAPLUS  
 CN 1-Piperidineethanethiol,  $\beta$ -methyl- $\alpha$ -phenyl-,  
 ( $\alpha$ R, $\beta$ S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



L14 ANSWER 6 OF 17 CAPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 1998:482774 CAPLUS  
 DOCUMENT NUMBER: 129:216335  
 TITLE: Asymmetric synthesis of a new cylindrically chiral and air-stable ferrocenyldiphosphine and its application to rhodium-catalyzed asymmetric hydrogenation  
 AUTHOR(S): Kang, Jahyo; Lee, Jun Hee; Ahn, Sung Hoon; Choi, Jung Sun  
 CORPORATE SOURCE: Department of Chemistry and Organic Chemistry Research Center, Sogang University, Seoul, 121-742, S. Korea  
 SOURCE: Tetrahedron Letters (1998), 39(31), 5523-5526  
 PUBLISHER: Elsevier Science Ltd.  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 129:216335

AB The novel, cylindrically chiral air-stable (*S,S*)-1,1'-bis(diphenylphosphino)-2,2'-di-3-pentylferrocene [(*S,S*)-FerroPHOS] ligand was prepared and its *in situ* rhodium complexes have been applied to asym. hydrogenation. High reactivity and selectivity have been realized in hydrogenation of various dehydroamino acid derivs.

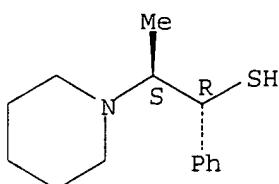
IT 166031-49-8

RL: RCT (Reactant); RACT (Reactant or reagent)  
(asym. synthesis of a new cylindrically chiral and air stable ferrocenyldiphosphine and its application to rhodium catalyzed asym. hydrogenation)

RN 166031-49-8 CAPLUS

CN 1-Piperidineethanethiol,  $\beta$ -methyl- $\alpha$ -phenyl-,  
( $\alpha$ R, $\beta$ S) - (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



REFERENCE COUNT: 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 7 OF 17 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1998:362994 CAPLUS

DOCUMENT NUMBER: 129:122430

TITLE: Examination of bidentate thiol derivatives as ligands in the Ni-catalyzed asymmetric conjugate addition of diethylzinc to enones

AUTHOR(S): Kang, Jahyo; Kim, Joo In; Lee, Jae Hoon; Kim, Hyo - Jung; Byun, Yong Hun

CORPORATE SOURCE: Department of Chemistry, Sogang University, Seoul, 121-742, S. Korea

SOURCE: Bulletin of the Korean Chemical Society (1998), 19(5), 601-603

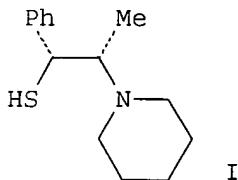
PUBLISHER: Korean Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 129:122430

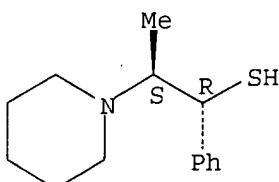
GI



AB Asym. conjugate addition of diethylzinc to (E)-PhCH:CHCOPh was catalyzed by Ni(II) complexes, e.g. Ni(acac)<sub>2</sub> or NiCl<sub>2</sub>, in presence of bidentate thiol

IT ligands, e.g. I. The major enantiomer obtained was (R)-PhCH<sub>2</sub>EtCH<sub>2</sub>COPh.  
**166031-49-8**  
 RL: CAT (Catalyst use); USES (Uses)  
 (asym. conjugate addition of diethylzinc to enones catalyzed by Ni(II) and  
 bidentate thiol ligands)  
 RN 166031-49-8 CAPLUS  
 CN 1-Piperidineethanethiol, β-methyl-α-phenyl-,  
 (αR,βS)- (9CI) (CA INDEX NAME)

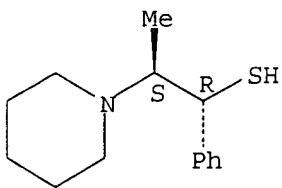
Absolute stereochemistry. Rotation (-).



REFERENCE COUNT: 51 THERE ARE 51 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

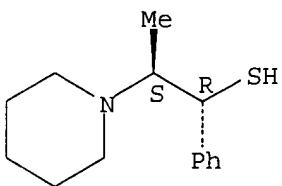
L14 ANSWER 8 OF 17 CAPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 1998:272187 CAPLUS  
 DOCUMENT NUMBER: 129:54427  
 TITLE: The interaction of chiral amino thiols with organozinc reagents and aldehydes: a mechanism of amino thiol-catalyzed addition of organozinc reagents to aldehydes  
 AUTHOR(S): Kang, Jahyo; Kim, Jin Bum; Kim, Jeeyoung; Lee, Duckhwan  
 CORPORATE SOURCE: Department of Chemistry, Sogang University, Seoul, 121-742, S. Korea  
 SOURCE: Bulletin of the Korean Chemical Society (1998), 19(4), 475-481  
 PUBLISHER: Korean Chemical Society  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 AB Details of various equilibrium involved in the reactions of oxaza- and thiazazincolidine catalysts, generated from either β-amino alc. or β-amino thiol, with benzaldehyde were studied by colligative measurements. The coordination of diethylzinc prior to the coordination of aldehyde is essential for high enantioselectivity of the thiol catalyzed reaction. The probable origin of asym. nonlinearity is also presented.  
 IT **166031-49-8 188711-05-9**  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (mechanism of amino thiol-catalyzed addition of organozinc reagents to aldehydes)  
 RN 166031-49-8 CAPLUS  
 CN 1-Piperidineethanethiol, β-methyl-α-phenyl-,  
 (αR,βS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



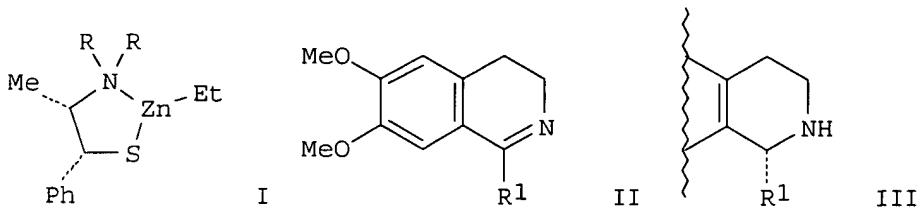
RN 188711-05-9 CAPLUS  
 CN 1-Piperidineethanethiol,  $\beta$ -methyl- $\alpha$ -phenyl-,  
 ( $\alpha$ R, $\beta$ S)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 9 OF 17 CAPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 1997:213617 CAPLUS  
 DOCUMENT NUMBER: 126:277632  
 TITLE: Enantioselective catalytic reduction of dihydroisoquinoline derivatives  
 AUTHOR(S): Kang, Jahyo; Kim, Jin Bum; Cho, Kwi Hyung; Cho, Byung Tae  
 CORPORATE SOURCE: Department of Chemistry, Sogang University, Seoul, 121-742, S. Korea  
 SOURCE: Tetrahedron: Asymmetry (1997), 8(5), 657-660  
 CODEN: TASYE3; ISSN: 0957-4166  
 PUBLISHER: Elsevier  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 126:277632  
 GI



AB Zinc complexes I [ $RR = (CH_2)_5$ ,  $R = Me$ ] were shown to be excellent catalysts for enantioselective reduction of dihydroisoquinolines II ( $R1 = Me$ , 3,4-dimethoxy-, 3,4,5-trimethoxybenzyl, 3,4-dimethoxyphenyl) with

BH<sub>3</sub>·THF to the corresponding (R)-tetrahydroisoquinolines III with good enantioselectivity.

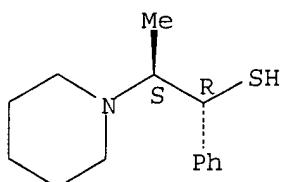
IT 166031-49-8

RL: RCT (Reactant); RACT (Reactant or reagent)  
(enantioselective catalytic reduction of dihydroisoquinoline derivs.)

RN 166031-49-8 CAPLUS

CN 1-Piperidineethanethiol,  $\beta$ -methyl- $\alpha$ -phenyl-,  
( $\alpha$ R, $\beta$ S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



REFERENCE COUNT: 47 THERE ARE 47 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 10 OF 17 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1997:133573 CAPLUS

DOCUMENT NUMBER: 126:263720

TITLE:

The effects of sulfur substitution in chiral amino thiols on the enantioselective addition of organozinc reagents to aldehydes: a novel method for estimation of free energies of dimerization in monomer-dimer equilibria

AUTHOR(S):

Kang, Jahyo; Kim, Jin Bum; Kim, Jeong Whan; Lee, Duckhwan

CORPORATE SOURCE:

Dep. of Chemistry, Sogang University, Seoul, 121-742, S. Korea

SOURCE:

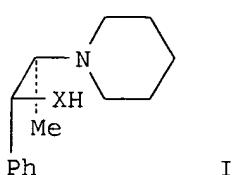
Journal of the Chemical Society, Perkin Transactions 2: Physical Organic Chemistry (1997), (2), 189-194

PUBLISHER: CODEN: JCPKBH; ISSN: 0300-9580

DOCUMENT TYPE: Royal Society of Chemistry

LANGUAGE: Journal

GI English



AB Differences between the thiol ligand I (X = S) and the corresponding alc. ligand (X = O) were observed in the catalytic asym. alkylation of benzaldehyde with diethylzinc. The thiol ligand was superior for reaction rate, enantioselectivity and asym. amplification. The effects of chiral amino thiols are discussed and compared with the results of chiral amino

alc. counterparts. The quant. and thermodn. aspects of the monomer-dimer equilibrium involved in thiazazincolidine or oxazazincolidine catalysts have also been studied on the basis of colligative properties.

IT 166031-49-8 188711-05-9 188711-34-4

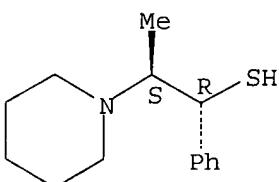
RL: CAT (Catalyst use); PEP (Physical, engineering or chemical process); PRP (Properties); RCT (Reactant); PROC (Process); RACT (Reactant or reagent); USES (Uses)

(effect of sulfur substitution in chiral amino thiols on enantioselective addition of organozinc reagents to aldehydes, and colligative estimation of free energies of dimerization in monomer-dimer equilibrium)

RN 166031-49-8 CAPLUS

CN 1-Piperidineethanethiol,  $\beta$ -methyl- $\alpha$ -phenyl-,  
( $\alpha$ R, $\beta$ S)- (9CI) (CA INDEX NAME)

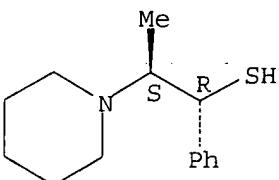
Absolute stereochemistry. Rotation (-).



RN 188711-05-9 CAPLUS

CN 1-Piperidineethanethiol,  $\beta$ -methyl- $\alpha$ -phenyl-,  
( $\alpha$ R, $\beta$ S)-rel- (9CI) (CA INDEX NAME)

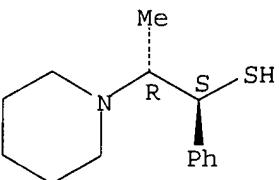
Relative stereochemistry.



RN 188711-34-4 CAPLUS

CN 1-Piperidineethanethiol,  $\beta$ -methyl- $\alpha$ -phenyl-, [S-(R\*, S\*)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



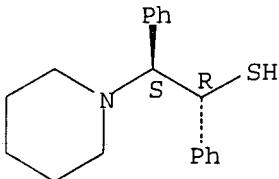
REFERENCE COUNT:

16

THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

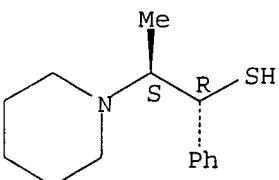
L14 ANSWER 11 OF 17 CAPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 1997:39785 CAPLUS  
 DOCUMENT NUMBER: 126:131036  
 TITLE: Chiral  $\beta$ -amino thiol catalysts for the enantioselective addition of diethylzinc to aldehydes  
 AUTHOR(S): Kang, Jahyo; Kim, Jeong Whan; Lee, Jun Won; Kim, Dong Soo; Kim, Joo In  
 CORPORATE SOURCE: Dep. Chem., Sogang Univ., Seoul, 121-742, S. Korea  
 SOURCE: Bulletin of the Korean Chemical Society (1996), 17(12), 1135-1142  
 CODEN: BKCSDE; ISSN: 0253-2964  
 PUBLISHER: Korean Chemical Society  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 AB Reaction of diethylzinc with  $\alpha$ -branched aldehydes in the presence of a catalytic amount (5 mol %) of various  $\beta$ -amino thiols in toluene or ether provided the corresponding secondary alcs. in outstanding ee. Detailed preparative procedure for the  $\beta$ -amino thiols are presented.  
 IT 160011-80-3P  
 RL: CAT (Catalyst use); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)  
 (enantioselective addition of diethylzinc to aldehydes using chiral  $\beta$ -amino thiol catalysts)  
 RN 160011-80-3 CAPLUS  
 CN 1-Piperidineethanethiol,  $\alpha,\beta$ -diphenyl-, ( $\alpha$ R, $\beta$ S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



IT 166031-49-8P  
 RL: CAT (Catalyst use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)  
 (enantioselective addition of diethylzinc to aldehydes using chiral  $\beta$ -amino thiol catalysts)  
 RN 166031-49-8 CAPLUS  
 CN 1-Piperidineethanethiol,  $\beta$ -methyl- $\alpha$ -phenyl-, ( $\alpha$ R, $\beta$ S)- (9CI) (CA INDEX NAME)

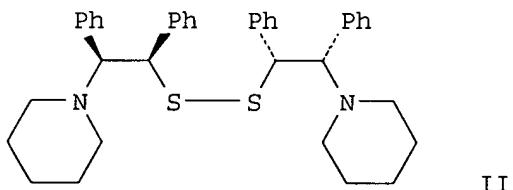
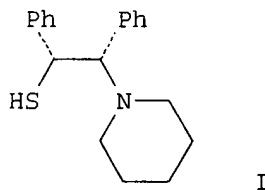
Absolute stereochemistry. Rotation (-).



REFERENCE COUNT: 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 12 OF 17 CAPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 1995:194984 CAPLUS  
 DOCUMENT NUMBER: 122:55341  
 TITLE: Enantioselective addition of diethylzinc to aldehydes catalyzed by a drug-unrelated chiral amino thiol and the corresponding disulfide  
 AUTHOR(S): Kang, Jahyo; Kim, Dong Soo; Kim, Joo In  
 CORPORATE SOURCE: Department Chemistry, Sogang University, Seoul, 121-742, S. Korea  
 SOURCE: Synlett (1994), (10), 842-4  
 CODEN: SYNLES; ISSN: 0936-5214  
 PUBLISHER: Thieme  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 122:55341  
 GI



AB Reaction of diethylzinc with aldehydes in the presence of a catalytic amount of a  $\beta$ -amino thiol I (5 mol %) and the disulfide II (2.5 mol %) in toluene at 0° provided the corresponding secondary alcs. in excellent ee's.

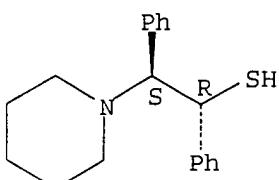
IT 160011-80-3P

RL: CAT (Catalyst use); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)  
 (enantioselective addition of diethylzinc with aldehydes catalyzed by chiral amino thiol and disulfide)

RN 160011-80-3 CAPLUS

CN 1-Piperidineethanethiol,  $\alpha,\beta$ -diphenyl-, ( $\alpha$ R, $\beta$ S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



L14 ANSWER 13 OF 17 CAPLUS COPYRIGHT 2005 ACS on STN

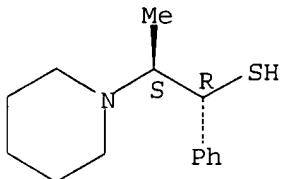
ACCESSION NUMBER: 1995:86424 CAPLUS

DOCUMENT NUMBER: 123:142957

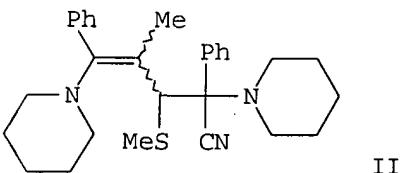
TITLE: Enantioselective addition of diethylzinc to

AUTHOR(S):  $\alpha$ -branched aldehydes  
 Kang, Jahyo; Lee, Jun Won; Kim, Joo In  
 CORPORATE SOURCE: Department of Chemistry, Sogang University, Seoul,  
 121-742, S. Korea  
 SOURCE: Journal of the Chemical Society, Chemical  
 Communications (1994), (17), 2009-10  
 CODEN: JCCCAT; ISSN: 0022-4936  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 123:142957  
 AB Reaction of diethylzinc with  $\alpha$ -branched aldehydes in the presence of a catalytic amount of (1R,2S)-(-)-1-phenyl-2-piperidinopropane-1-thiol provided the corresponding secondary alcs. in almost 100% enantiomeric excess.  
 IT 166031-49-8P  
 RL: CAT (Catalyst use); SPN (Synthetic preparation); PREP (Preparation);  
 USES (Uses)  
 (best catalyst; as ligand catalyst for enantioselective addition of diethylzinc to  $\alpha$ -branched aldehydes)  
 RN 166031-49-8 CAPLUS  
 CN 1-Piperidineethanethiol,  $\beta$ -methyl- $\alpha$ -phenyl-,  
 ( $\alpha$ R, $\beta$ S) - (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



L14 ANSWER 14 OF 17 CAPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 1993:560233 CAPLUS  
 DOCUMENT NUMBER: 119:160233  
 TITLE: Reactions of carbanions generated from 2-(dialkylamino)-2-phenylacetonitriles with disubstituted acetylenes  
 AUTHOR(S): Zdrojewski, Tadeusz; Jonczyk, Andrzej  
 CORPORATE SOURCE: Dep. Chem., Tech. Univ. (Politechnika), Warsaw,  
 00-662, Pol.  
 SOURCE: Liebigs Annalen der Chemie (1993), (4),  
 375-8  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 GI



AB Reactions of aminonitriles PhCH(NR12)CN [R12 = (CH<sub>2</sub>)<sub>5</sub>, (CH<sub>2</sub>)<sub>4</sub>, (CH<sub>2</sub>)<sub>2</sub>O(CH<sub>2</sub>)<sub>2</sub>, (CH<sub>2</sub>)<sub>2</sub>S(CH<sub>2</sub>)<sub>2</sub>, (CH<sub>2</sub>)<sub>2</sub>NMe(CH<sub>2</sub>)<sub>2</sub>] with MeC.tplbond.CR<sub>2</sub> (R<sub>2</sub> = SMe, Ph), carried out in DMSO in the presence of powdered sodium hydroxide and benzyltriethylammonium chloride (TEBAC) as a catalyst, afford either PhC(NR12)(CN)CMe:CHR<sub>2</sub> (I) as the E/Z isomer mixture or the pure E isomer or a mixture of I (R<sub>2</sub> = SMe) and dipiperidinopentenenitrile II; unmasking of the carbonyl group in I [R12 = (CH<sub>2</sub>)<sub>5</sub>, R<sub>2</sub> = Ph] and II gives ketones PhCOCMe:CHPh and PhCOCHMeCH(SMe)COPh, resp.

IT 150179-13-8P 150179-14-9P

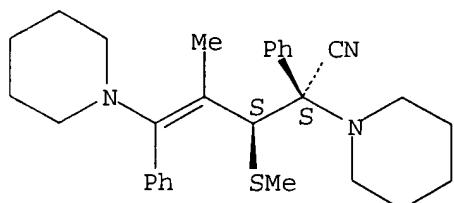
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation and cleavage of)

RN 150179-13-8 CAPLUS

CN 1-Piperidineacetonitrile,  $\alpha$ -[2-methyl-1-(methylthio)-3-phenyl-3-(1-piperidinyl)-2-propenyl]- $\alpha$ -phenyl-, (R\*,R\*)- (9CI) (CA INDEX NAME)

Relative stereochemistry.

Double bond geometry unknown.

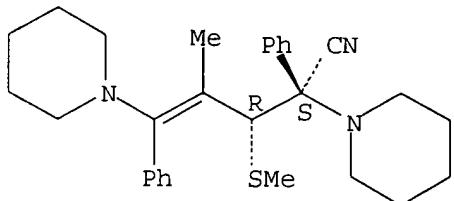


RN 150179-14-9 CAPLUS

CN 1-Piperidineacetonitrile,  $\alpha$ -[2-methyl-1-(methylthio)-3-phenyl-3-(1-piperidinyl)-2-propenyl]- $\alpha$ -phenyl-, (R\*,S\*)- (9CI) (CA INDEX NAME)

Relative stereochemistry.

Double bond geometry unknown.



L14 ANSWER 15 OF 17 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1991:228476 CAPLUS

DOCUMENT NUMBER: 114:228476

TITLE: Synthesis and study of derivatives of  
3-(alkylamino)-2-(methylthio)carboxylic acids

AUTHOR(S): Vidugiriene, V.; Valaviciene, J.; Rasteikiene, L.

CORPORATE SOURCE: Inst. Biokhim., Vilnius, USSR

SOURCE: Chemija (1990), (2), 101-6

CODEN: CHMJE; ISSN: 0235-7216

DOCUMENT TYPE: Journal

LANGUAGE: Russian

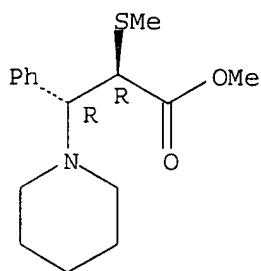
OTHER SOURCE(S): CASREACT 114:228476

AB Treating Z-RCH:C(SMe)COX (R = Ph, Me, X = NHPh; R = Ph, X = OMe) and

RCHClCH(SMe)COX (same R, X) with 2-4 equiv HA (A = piperidino, morpholino, cyclohexylamino, ethylenimino, NHC5H11-n) gave 10 corresponding RCHACH(SMe)COX (I) as erythro-threo mixts. I had low-to-moderate toxicity and antitumor activity, with I (R = Ph, A = piperidino, X = NHPH) showing the best profile.

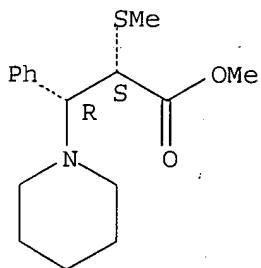
IT 133508-72-2P 133508-73-3P 133508-80-2P  
 133508-81-3P 133612-17-6P 133612-23-4P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation, toxicity, and antineoplastic activity of)  
 RN 133508-72-2 CAPLUS  
 CN 1-Piperidinepropanoic acid,  $\alpha$ -(methylthio)- $\beta$ -phenyl-, methyl ester, (R\*,R\*)- (9CI) (CA INDEX NAME)

Relative stereochemistry.



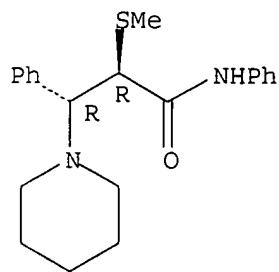
RN 133508-73-3 CAPLUS  
 CN 1-Piperidinepropanoic acid,  $\alpha$ -(methylthio)- $\beta$ -phenyl-, methyl ester, (R\*,S\*)- (9CI) (CA INDEX NAME)

Relative stereochemistry.



RN 133508-80-2 CAPLUS  
 CN 1-Piperidinepropanamide,  $\alpha$ -(methylthio)-N, $\beta$ -diphenyl-, (R\*,R\*)- (9CI) (CA INDEX NAME)

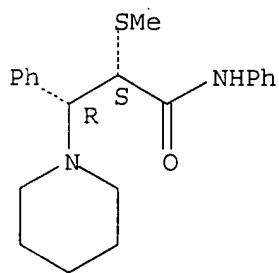
Relative stereochemistry.



RN 133508-81-3 CAPLUS

CN 1-Piperidinepropanamide,  $\alpha$ -(methylthio)-N, $\beta$ -diphenyl-, (R\*,S\*)- (9CI) (CA INDEX NAME)

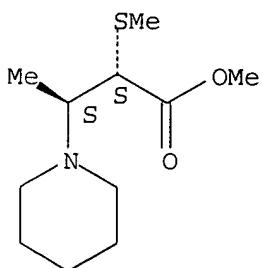
Relative stereochemistry.



RN 133612-17-6 CAPLUS

CN 1-Piperidinepropanoic acid,  $\beta$ -methyl- $\alpha$ -(methylthio)-, methyl ester, (R\*,R\*)- (9CI) (CA INDEX NAME)

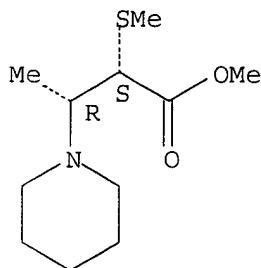
Relative stereochemistry.



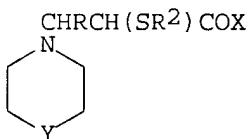
RN 133612-23-4 CAPLUS

CN 1-Piperidinepropanoic acid,  $\beta$ -methyl- $\alpha$ -(methylthio)-, methyl ester, (R\*,S\*)- (9CI) (CA INDEX NAME)

Relative stereochemistry.



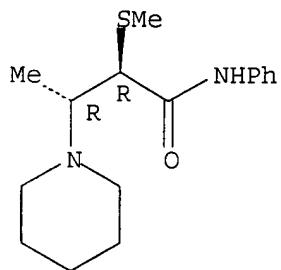
L14 ANSWER 16 OF 17 CAPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 1991:206268 CAPLUS  
 DOCUMENT NUMBER: 114:206268  
 TITLE: Nucleophilic addition of amines to derivatives of unsaturated acids containing 2-alkyl(phenyl)thio groups  
 AUTHOR(S): Talaikyte, Z.; Vidugiriene, V.; Rasteikiene, L.  
 CORPORATE SOURCE: Inst. Biokhim., Vilnius, USSR  
 SOURCE: Chemija (1990), (2), 93-100  
 CODEN: CHMJES; ISSN: 0235-7216  
 DOCUMENT TYPE: Journal  
 LANGUAGE: Russian  
 GI



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AB The title reaction of piperidine or morpholine with RCH:C(SR1)COX (R = Me, Ph; R1 = Me, Ph, CH2CH2Cl; X = NHPh, OMe) is nonstereospecific and gives mixts. of derivs. of erythro- and threo-butanoic acid I (R = Me, R2 = Me, piperidino- or morpholinoethyl; Y = CH2, O) or -phenylpropanoic acid I (R = Ph).  
 IT 133508-66-4P 133508-67-5P 133508-72-2P  
 133508-73-3P 133508-80-2P 133508-81-3P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of)  
 RN 133508-66-4 CAPLUS  
 CN 1-Piperidinepropanamide,  $\beta$ -methyl- $\alpha$ -(methylthio)-N-phenyl-, (R\*,R\*)- (9CI) (CA INDEX NAME)

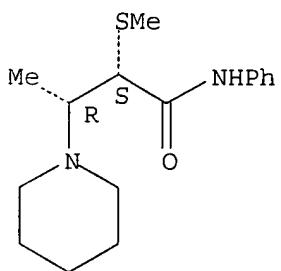
Relative stereochemistry.



RN 133508-67-5 CAPLUS

CN 1-Piperidinepropanamide,  $\beta$ -methyl- $\alpha$ -(methylthio)-N-phenyl-,  
(R\*,S\*)- (9CI) (CA INDEX NAME)

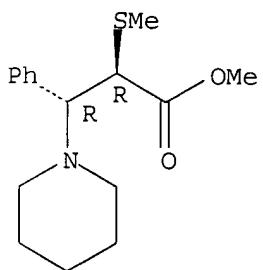
Relative stereochemistry.



RN 133508-72-2 CAPLUS

CN 1-Piperidinepropanoic acid,  $\alpha$ -(methylthio)- $\beta$ -phenyl-, methyl ester, (R\*,R\*)- (9CI) (CA INDEX NAME)

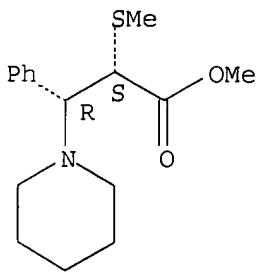
Relative stereochemistry.



RN 133508-73-3 CAPLUS

CN 1-Piperidinepropanoic acid,  $\alpha$ -(methylthio)- $\beta$ -phenyl-, methyl ester, (R\*,S\*)- (9CI) (CA INDEX NAME)

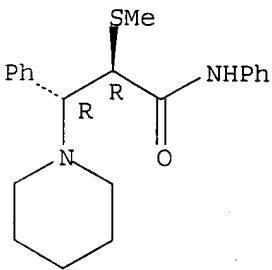
Relative stereochemistry.



RN 133508-80-2 CAPLUS

CN 1-Piperidinepropanamide,  $\alpha$ -(methylthio)-N, $\beta$ -diphenyl-, (R\*,R\*)-  
(9CI) (CA INDEX NAME)

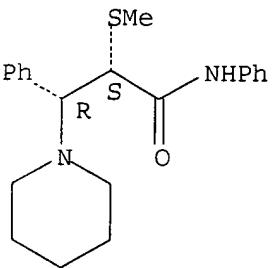
Relative stereochemistry.



RN 133508-81-3 CAPLUS

CN 1-Piperidinepropanamide,  $\alpha$ -(methylthio)-N, $\beta$ -diphenyl-, (R\*,S\*)-  
(9CI) (CA INDEX NAME)

Relative stereochemistry.



L14 ANSWER 17 OF 17 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1990:458617 CAPLUS

DOCUMENT NUMBER: 113:58617

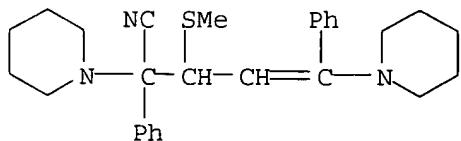
TITLE: Reactions of organic anions. 168. Reactions of  
2-(dialkylamino)arylacetonitriles with acetylenes  
under basic conditions. A simple synthesis of  
substituted mono- and diketones

AUTHOR(S): Zdrojewski, T.; Jonczyk, A.

CORPORATE SOURCE: Dep. Chem., Tech. Univ., Warsaw, PL-00-662, Pol.

03/14/2005 10807710.trn

SOURCE: *Synthesis* (1990), (3), 224-33  
CODEN: SYNTBF; ISSN: 0039-7881  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
OTHER SOURCE(S): CASREACT 113:58617  
AB The reaction of RCH(CN)NR12 (I; R = Ph, 4-MeC<sub>6</sub>H<sub>4</sub>, 4-MeOC<sub>6</sub>H<sub>4</sub>; R1 = Me; NR12 = piperidino, morpholino, etc.) with R<sub>2</sub>C.tplbond.CH (II; R<sub>2</sub> = Ph, MeS) gave R<sub>12</sub>NCR(CN)CH:CHR<sub>2</sub> (III) and/or R<sub>12</sub>NCR(CN)CHR<sub>2</sub>CH:CRNR12; the product depended on the basicity of the amino group in III. I also added to C-1 of II (R<sub>2</sub> = EtO) to give R<sub>12</sub>NCR(CN)C(OEt):CH<sub>2</sub>. All these products could be hydrolyzed to give mono- or diketones.  
IT 128407-40-9P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(preparation and hydrolysis of)  
RN 128407-40-9 CAPLUS  
CN 1-Piperidineacetonitrile,  $\alpha$ -[1-(methylthio)-3-phenyl-3-(1-piperidinyl)-2-propenyl]- $\alpha$ -phenyl- (9CI) (CA' INDEX NAME)



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COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	173.54	677.96
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-24.82	-27.01

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